

RECENT OCCUPATIONAL TRENDS IN AMERICAN LABOR

A SUPPLEMENT TO
*OCCUPATIONAL TRENDS
IN THE UNITED STATES*

By

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PREFACE

This analysis is intended to convey an understanding of recent occupational trends in American labor as revealed in the 1940 census and made available for study as late as June 1944. The facts indicate much concerning that body of workers which weathered the depression and formed the foundation upon which our gigantic wartime economy has been built. They also give much more than a hint of the nature and size of the labor force to which our economy must be adjusted as peace becomes a reality.

To these facts have been added available material relating to wartime and postwar employment. This material is scanty from the viewpoint of long-run trends. The wartime employment situation is so abnormal that there is little advantage in reporting detailed statistics relating to it. The postwar situation will more nearly approximate that of 1940, uncertain as this may be for forecasting purposes.

We do not here repeat facts or findings contained in our *Occupational Trends in the United States* (1940). That book described in considerable detail forces at work in our national life which are reflected in census occupational reports and in researches into the nature and the effects of changes in the supply of and the demand for workers. An invaluable statistical monograph has recently been published by the Census Bureau which, in one part, has examined its ample records to determine as far as possible the numerical occupational trends from 1870 to 1930. The Bureau has, in addition, undertaken to compare the 1930 status with that of 1940 according to a radically altered classification scheme; the different occupational groups of 1930 were rearranged to coincide with those of 1940, and by means of an "adjustment factor," a new series was set up and was extended for many occupations from 1910 to 1940, the classifications used from 1910 to 1930 being much alike.¹ In general, the Bureau's study confirms the analysis we presented in *Occupational Trends in the United States*.

The census of 1940 was taken during the week of March 24 to 30 of that year. The census of 1930 was taken during April. Most earlier censuses had been taken during January.

¹ Alba M. Edwards, *Sixteenth Census of the United States, 1940. Population Comparative Occupation Statistics For the United States, 1870 to 1940*, United States Government Printing Office, Washington, D.C., 1943.

In 1940 the usual instructions to enumerators were greatly changed, and the occupational classification was altered radically. The 534 occupational groups listed in 1930 were reduced in 1940 to 451; some of the old designations were kept intact, others were expanded, still others were dropped, and some new ones were added. In 1930 eight broad industrial divisions, of these many occupational groups were arranged; and in 1940 they were rearranged into eleven major occupational groups. A further industrial grouping was set up, 12 divisions being used, showing 132 industrial groups in 1940, instead of 128 shown in 1930.

But the most important difference between the earlier censuses and that of 1940 is in the concept of "Labor Force" as compared with "Gainful Workers." In 1930 all those who declared to the enumerator that they had a gainful occupation, whether they were employed in it or not or ever would be again, were listed in that occupation. Thus the 1930 census was not one of employment or employability, but of actual, probable, and possible workers. In 1940, however, the census undertook to classify workers as follows: (1) persons at work during the week of March 24-30, 1940, either in private industry or in non-emergency government work; (2) persons at work on or assigned to public emergency-project work; (3) persons who were seeking work but were not in either of the groups indicated; (4) persons who had jobs from which they were temporarily absent at the census-taking time.

Another contrast between the 1940 and earlier censuses concerned the age of reporting workers. By 1940, child labor had declined so that it was considered unnecessary to enumerate workers as young as 10 years, and the lowest age limit was advanced to 14.

The numerical material here reported is drawn chiefly from two sources—the monograph already referred to, and *Population, Vol. III, The Labor Force, Part I, United States Summary*, Washington, D.C., 1943. The sources of the supplemental material are indicated in the text.

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CHAPTER I

THE AMERICAN LABOR FORCE—A SUMMARY

This opening chapter presents the over-all occupational situation in 1940 in a series of brief topical summaries. Allusions to wartime conditions are made in footnotes to successive topics.

Divisions of the Population

In March 1940 the population of the United States totaled 131,670,000, males numbering 66,062,000 and females 65,608,000. The numbers for the population 14 years of age and over were: both sexes, 101,103,000; males, 50,554,000; females, 50,549,000. Slightly more than half of all Americans 14 years of age and over, 52 per cent, were in the labor force; the remaining 48 per cent were recorded as not engaged in gainful work or seeking such work. Yet among the last-named were many housewives, unpaid family workers, and part-time workers, so that useful work characterized the daily lives of all but a minor fraction of all adults. Thus housewives constituted the major part of the group not in the labor force, being 28 per cent of the population 14 years of age and over. Another 9 per cent were in school, 5 per cent were unable to work because of mental and physical disabilities, slightly more than 1 per cent were in institutions, and 4 per cent had failed to report their status.

The national labor force numbered 52,789,000. Of this total 39,944,000 were males and 12,845,000 were females.¹ Of all males 14 years of age and over, 79.7 per cent were in the labor force, of females 25.7 per cent.

Unemployed in a March week, 1940

A number of experienced workers for one reason or another are out of work, even in the best of times. In 1940 when the census was taken in one week of March, such persons totaled 4,326,000, almost a million of whom were females. Here is the cushion of residual labor supply which some commentators consider necessary to insure an available force for increased demands for labor at any particular time and to prevent workers overcharging employers for their services. Such a cushion

¹ Adjusted figures are: males, 40,284,000, females, 13,015,000; both sexes, 53,299,000.

is believed to be inevitable and desirable in a dynamic economy where new enterprises and new processes are being developed daily. To lessen the hardships and hazards of people without remunerative labor, social security provides period insurance. So the reasoning goes.

But any such large number of unemployed workers means a substantial reduction in the national income, loss of purchasing power, and a decline in goods and services available. What the fear of losing his job and the actual loss of that job mean to the worker and his dependents, only those who have experienced such conditions can fully attest. Social reports are filled with dismal and tragic accounts of the meaning of unemployment to the individual, the community, and the nation. Yet, in 1940, 8 per cent of the nation's labor force were experienced workers seeking work. Another 4 per cent were engaged in various forms of "made work" under public emergency programs; and thus 12 out of every 100 American workers made up the cushion of manpower available for work—by any reasonable standard far too large a proportion to be kept in idleness.

The new workers being continually added to the national labor force experience a period of floundering until they become established in long-term or regular jobs.² How large the annual crop of new workers is, and how it spreads itself over the field of occupations is not known in any detail. During the last week of March in 1940, there were 767,000 new, inexperienced workers seeking employment. Of this number 462,000 were males and 305,000 were females. The total constituted less than one per cent of all persons 14 years of age and over, and about one and a half per cent of the total labor force.

Always a considerable number of persons who have jobs are not at work at any given moment, for one or several reasons. The census figure for March 1940 was 1,121,000, males numbering 806,000 and females 315,000.

Employment in 1939

The census sought the employment record of all experienced workers in March of 1940 for an entire year, 1939, a comparatively good year of the depression decade. The total number of wage and salary workers reporting was about 40,500,000. Of these, 92 per cent had some work in 1939, rang-

² See Davidson and Anderson, *Occupational Mobility in an American Community* (Stanford University Press, 1937), chap. iii

ing from 3 months to 12. Only 52 per cent had worked the full year, whereas 16 per cent had worked for a total of from 9 to 11 months, 13 per cent for from 6 to 8 months, and the remaining 11 per cent for from 3 months or less to 5 months; 2 per cent made no report. These figures are approximate.

This is the more favorable record of the total group. Among the four million experienced workers who were seeking work in the March week of 1940, a fourth had had no employment in 1939; another 29 per cent had had up to 5 months' employment in that year; and only 9 per cent had had a full year's work in 1939.

On Relief

As this is being written in the summer of 1944, when the scarcity of manpower is so marked that strict control of its use has been required, it seems an echo of a past one would prefer to forget that, in 1940, 2,530,000 persons were still carried on emergency relief projects—NYA, CCC, or state and local work relief. Of the number, 2,072,000 were males and 458,000 were females. Distributed rather thinly over the country, they constituted less than 5 per cent of the nation's labor force. This was the residue of the depression years.

It is probable that, with more complete recovery over the years, the relief load of 1940 would have been reduced. That the number reported on relief is minimum is the judgment of census specialists, who report the reluctance of workers to declare themselves on relief; for the WPA and NYA payrolls in March 1940, when the census was taken, showed 3,378,000 persons on work relief in these two programs. Somewhat less than half a million (472,000) were young workers or youth unable to find employment and certified to NYA for further training.

On the assumption that the number on relief who refused to admit the fact reported themselves as seeking work, the number of unemployed in March of 1940 consists of the sum of those reported as on relief and those seeking work, a total of 7,623,416. If some of those on relief who did not so declare themselves were really not reported in the labor force at all, this total is too small.³ Despite the substantial recovery in national income from the trough of the depression in 1932-33 to

³ An adjusted estimate reaches the figure of 8,200,000. Clarence D. Long, *The Labor Force in Wartime America* (National Bureau of Economic Research, Occasional Paper No. 14, March 1944), p. 20.

1940, which made it possible for many resourceless families to have employed members and others to have some intermittent labor and so escape the extreme severity of prolonged mass unemployment, this huge total represents the great unsolved problem of our national life.

The impact of unemployment in the several states ranged from 24 per cent of the labor force of New Mexico to 11 per cent in Maryland. Among the more populous states the percentages of unemployment were as follows: Pennsylvania, 20; New York, 17.8; Ohio, 16.7; Illinois, 16.2; Michigan, 15.5; California, 15.4; Texas, 14.7. For some of these states actual unemployment was probably somewhat higher than the amount recorded by the census, owing to failure to count properly those on state and local relief projects.

Age and Sex

In 1940 about half of all persons in the labor force (46.8 per cent) were in the mature working span from 25 to 44 years of age. Young workers, those from 14 to 24, were a fifth of the labor force (21.9 per cent); older workers, those from 45 to 64, were a fourth (27.2 per cent); and elderly workers, those over 65, were only 4 per cent.

It will be recalled that 52 per cent of the population 14 years of age and over were in the working force. By comparison, two-thirds of the persons 20 to 24 years of age were on the national labor roster, proportionately more than any other age group. The proportion of each age group from 20 to 54 years of age in the labor force was greater than the national average. The percentage of those from 55 to 64 years, was about average, dropping to 29 per cent for those between the ages 65 and 74 and falling to 9 per cent of those 75 and older. At the other extreme, only 5 per cent of those 14 and 15 years old were in the labor force; but the percentage of 16- and 17-year-olds jumped to 21 and of those 18 and 19 years of age to 52.7 per cent.

The proportion of the total population 14 years of age and older in the labor force declined 2.3 per cent from 1930 to 1940. This decline must not be confused with the change in the actual number in the total labor force; for, in this, 1940 showed a gain over 1930 of from 8 to 12 per cent, depending on whether adjusted or unadjusted figures are used.⁴ The decline was most

⁴ In making comparisons of the numerical-decade gain of particular occupational groups with that of the total labor force in succeeding chapters, the adjusted estimate of a 12.4 per cent gain in the labor force is used.

noticeable among the extremely young and the extremely old. Schools were apparently holding youth longer, and old-age pensions and other conditions in industry were removing oldsters from the list of workers. The decline with 16- and 17-year-old persons was 10.7 per cent; for those above 65 it was approximately the same. The proportion of persons between ages 20 and 34 in the labor force increased slightly during the ten-year period, owing to an increased number of women seeking employment. A substantial gain of 4.3 per cent was also made by women 35 to 44 years of age. In fact, the national decline would have been greater had it not been for the available work for women; for in every age group of males there was a loss, the total being 5.1 per cent. But among women all the age groups from 20 to 64 showed an increase in 1940 over 1930 in their proportion of the labor force, the total gain for the decade being 1.1 per cent. The trend toward a greater proportion of working women which has characterized the successive decades of this century shows a considerable rise since 1900. In that year 20.4 per cent of the female population 14 years of age and over were gainfully occupied; in 1930, 24.3 per cent; and in 1940, 25.7 per cent. Among factors affecting this trend are the decline in the birth rate, the urbanization of the population, the lightening of housework through the use of mechanical devices and available out-of-home sources and products, and the lower wage rate for women.

The number of occupations open to women has been increasing and the proportion of women in many jobs expanding. These trends have been greatly accelerated by conditions in industry in World War II.⁵ Despite the predictions and hopes of many who would reduce the labor force substantially in or-

⁵ "In war factories women have been particularly effective in certain occupational groups, the most important of these being assembly—the putting together of the various parts of a unit, inspection—determining that the parts of the completed units meet the standard requirements; and machine operations—the fabrication of the parts by means of drill presses, lathes, milling machines, and the like. . . . These processes . . . will continue in the future to demand women's service in the making of peacetime products." U. S. Department of Labor, *Labor Information Bulletin*, February 1945. See Elizabeth D. Benham, *Employment Opportunities in Characteristic Occupations for Women* (Women's Bureau, U. S. Department of Labor, Bulletin No. 201, 1944), especially Part II.

"Women were reported in various professional and technical jobs in nearly three-fifths of the plants visited early in 1943 by representatives of the United States Department of Labor," U. S. Department of Labor, *Labor Information Bulletin*, September 1943, p. 4. See also two pamphlets by Mary E. Pidgeon: *Changes in Women's Employment during the War* (Women's Bureau, U. S. Department of Labor, Special Bulletin No. 20), June 1944, and *A Preview as to Women Workers in Transition from War to Peace* (Women's Bureau, U. S. Department of Labor, Special Bulletin No. 18), March 1944, and J. D. Durand, "The Postwar Employment of Women," *International Labour Review*, December 1943.

der to adjust it to the prospect of a lower national income in the postwar period, the wartime opportunities afforded women to earn an independent living will not be surrendered lightly. Instead, it can be expected, judging from previous experience in this connection and recent trends just noted, that women will contend with men for employment in whatever jobs are available in the postwar period, and that a larger number of women will make up the national labor force—a condition requiring adjustments in the national economy and our social life.

Women as a sex enter the labor market earlier and leave it earlier than men do. In 1940 the age group 18–19 embraced only 4.1 per cent of the male workers but 7.9 per cent of the female workers; in the age group 20–24 the corresponding percentages were males 12.5 and females 20.7. The withdrawal of women becomes apparent in the age group 35–44, the percentage of male workers in this group having been 21.7 per cent and that of female workers only 19.2 per cent. The higher ages included 34.3 per cent of all male workers but only 21.7 per cent of all women workers. The earlier entrance of young women is presumably due chiefly to their desire to earn money as an intermediate step to marriage, while young men are thinking more of preparing for a life career; the earlier withdrawal of women is due chiefly to marriage. The market for young women at cheaper grades of labor is especially good in a wide variety of simple jobs for which they are fitted and which they are willing to take as temporary expedients.

Children and Youths

The last two decades have shown such a decrease in the number of children gainfully occupied, especially in factories, that the 1940 census advanced its lower age for recording the working population from 10 to 14 years. This does not mean that all child labor has been eliminated. But the Fair Labor Standards Act of 1938 set the age limit on federal contracts at 16, and by 1940 ten states had adopted this age as the lower limit of factory employment.⁶

In 1940 the number of boys between 14 and 17 no longer in school but listed as available for full-time employment or at

⁶ The United States Children's Bureau reports that "more than seven times as many boys and girls 14 through 17 years of age entered the labor market in 1943 as in 1940 and went into work subject to federal and state child-labor regulations." "Trend of Child Labor, 1940–44," *Monthly Labor Review*, April 1945. See also two articles on the topic in *Occupations*, November 1943 and March 1944.

work was 911,000, or 18.6 per cent of that sex and age group in the total population. In the Northeastern states the percentage of such boys was 16.1, in the Eastern states 11.6, in the North Central states 16.1, and in the Western states 12.4; but in the Southern states it reached the alarming percentage of 27.5. Georgia had the highest percentage of such boys in the labor force, 37.2, and Utah the lowest, 8.9, closely followed by California, 9.6 per cent. Twenty-two states exceeded the national average, twelve of them being Southern states where low per capita incomes are found, where a large proportion of the population is Negro, and where plantation and share-cropping agriculture predominate. Most of the Northern states exceeding the national average are agricultural states of the Western-North Central region, more recently settled than other northern agricultural states, where the practice of continuing on through high school has not been firmly established, and where the need of youthful labor is probably more acutely felt. Generally speaking, the proportion of child labor found in various parts of the country reflects the relative level of per capita income, educational attainment, and legislative policy.

The number of girls between 14 and 17 in the national labor force in 1940 was 368,000, or 7.6 per cent of that sex and age group in the total population. The several regions of the country had the percentages following: Northeastern, 8.2; North Central, 6.5; Western, 4.7; Southern, 8.9. Their percentages are much smaller than those of boys and their work pattern is considerably different. Their employment is more often in shops and factories or in domestic service, although they, too, are early put to work on Southern farms. Rhode Island had the highest percentage of working girls in 1940, 15.4, and California the lowest, 3.8 per cent, closely followed by Washington and Utah, each having 4 per cent.

The actual number of boys 14 to 17 years of age in the labor force dropped from 1,559,000 in 1920 to 911,000 in 1940 and that of girls from 836,000 to 368,000 in the same period. In 1920, 40 per cent of all boys of these ages were on the national labor roster; by 1940 the proportion had fallen to 18 per cent. Among girls 22 per cent of this age group were gainfully occupied in 1920, the percentage dropping to 8 per cent in 1940. The figures reflect changes in national policy tending to do away with child labor and indicate a most gratifying development.

It has been advanced by some who would reduce the size of

the national labor force to meet the prospective smaller need for workers in the immediate postwar economy that child labor be entirely abolished.⁷ This would lessen the pressure on available jobs by removing some 1,300,000 workers. If child workers were replaced by adult workers, if appropriate adjustments were made in their family conditions, and provision were assured for their further educational and vocational training, society and the individuals affected would gain much from the move. But the withdrawal of this child labor from the national labor supply will not solve the problem of providing job opportunities for a greatly expanded body of workers after the war.⁷

Marital Status of Female Workers

The 1940 census gives us our first detailed picture of the marital status of female workers. Of the 12,845,000 females in the national labor force, 6,349,000 or 49.4 per cent were single, 4,561,000 or 35.5 per cent were married, and 1,935,000 or 15.1 per cent were widowed or divorced. The role of the job in the life of the family and more particularly in that of the married woman living with her husband is partly shown by the 3,807,000 women, or 30 per cent of all female workers in that group in 1940, as compared with 1,920,000 women workers, or 23 per cent of all female workers in 1920, some unknown percentage of whom were not living with their respective husbands and families.

As the cumulative effect of the trends of the last two decades are felt, so the proportion of women in the higher age groups grows. No longer is the job simply a makeshift or "tiding over" period until marriage takes place; gainful employment is becoming increasingly a way of life for married women.

An examination of the percentages of married women in the several occupational categories in 1940 shows to be living with their husbands 22 per cent of all professional and semi-professional women workers, 47 per cent of all women proprietors and officials, 29 per cent of all women clerical workers, 44 per cent of all women in the crafts, 44 per cent of all women

⁷ "The group of teen-age boys and girls has supplied more additional [wartime] workers than any other group in the population of the United States . . . There were close to 5 million 14-19-year-old youths in the civilian labor force in April 1944 and an additional 1½ million in the Armed Forces—a total of 6½ million . . . About a third (1,500,000) are still attending school. On the basis of prewar trends only about 400,000 students would be expected to be in the labor force" "Teen-age Youth in the Wartime Labor Supply," *Monthly Labor Review*, January 1945, p. 6. See also "Sources of Wartime Labor Supply in the United States," *Monthly Labor Review*, August 1944, pp. 204-78.

operatives, 23 per cent of all domestic service workers, 39 per cent of all women protective-service workers, 35 percent of women in other types of services, and 41 per cent of women common-laborers.

While the force of economic necessity⁸ may play a major role in driving women from their homes for the working day, it is only one of several forces at work. Here is a new phenomenon in social life, the claim of women to working rights alongside of men. Accentuated by the pressure of the war effort, it can be expected to carry over into the peacetime, complicating the problem of employment for the augmented labor force then available. The trend is too well entrenched for any public pressure to avail against it. If this is true for married women living with their husbands and families, how much stronger is the claim on work opportunity for women who are widowed, the sole breadwinners in their families, or single and obliged to support themselves. Since these groups comprise two-thirds of all working women, it is obvious that the sounder social approach is to include women in all plans for the future use of the labor force, without any distinction of sex other than those which safeguards of health and the welfare of children require.

Major Occupational Groups

Detailed figures for 1940 on the eight major occupational groups comprising the experienced labor force are given in the appendix and merit careful study. Certain generalizations are possible which aid in describing the occupational situation:

Slightly less than half of all workers are manual laborers (46 per cent), ranging from unskilled and farm labor up through the ranks of semiskilled operatives in shops and factories, apprentices, and craftsmen, to foremen and superintendents in industry. When to this number are added the 10.6 per cent of domestic and other service workers, and the working farmers, the great bulk of American manpower is found in manual work.

The largest single group among these manual workers is that of semiskilled machine-tending "operatives," so charac-

⁸ "Nearly 15,000 families with an earning wife were included in a study made not long before the war. Almost 3,300 wives were principal earner in the family and nearly 1,000 of these were the only earner. Even with the wife's contribution, many of the other 11,500 families were not affluent. In three-fifths of them the wife's earnings did not raise the income even up to \$2,000 a year, in over one-eighth the income was less than \$1,000 a year despite the wife's earnings." U.S. Department of Labor, *Labor Information Bulletin*, November 1944, p. 5.

teristic of our high-speed, mass-production, assembly-line economy, 18.1 per cent. Next in importance numerically is unskilled and farm labor, 16.5 per cent, and craftsmen and foremen make up 11.3 per cent.

The second largest major occupational group is that of proprietors, managers, and officials, 17.4 per cent; but as more than half of their number are farm operators and tenant farmers, whose status is a mixture of proprietorship and manual labor, the operation of business establishments is the way of life for a much smaller percentage of the employed population (7.8 per cent).

White-collar workers in the clerical and sales force are 16 per cent of all experienced workers. The protective services are a small fraction of the labor force, 1.4 per cent. The professions and semiprofessions, while numerically important and of great significance in the production of goods and services, comprise only 6.8 per cent of all workers. Although the trends, as described in some detail in *Occupational Trends in the United States*, are increasingly toward white-collar work and away from manual labor, the populations involved in the former are so small in comparison with those of the latter that even rather substantial recent gains in the number of white-collar workers are still too small to effect greatly the proportions of the various types of labor which make up the employed population.

The foregoing summary describes a labor force made up of males and females whose occupational distribution differs considerably. It consists chiefly of male workers in the several occupational groups, for these constitute three-fourths of all workers (76 per cent) and in some occupations an even larger proportion. The following percentages in brackets relate to major divisions:

Over half of all male workers (53.0 per cent) are manual laborers; slightly more than a fifth are unskilled workers or farm hands (20.6); operatives are somewhat less than a fifth (17.8); and craftsmen and foremen are a seventh (14.6). Farm operators and business proprietors combined total a fifth of all employed men (21.54). The white-collar sales and clerical occupations are followed by an eighth (12.2), while the professions employ only a twentieth (5.1). General service workers are less than a twentieth (4.8), and the protective services, which are largely manned by males, offer employment for only 1.9 per cent of all male workers.

Contrast this display with that of employed females. Among them, general service workers constitute the leading numerical group (28.8), closely followed by sales and clerical workers (27.9). Women make up the bulk of the professional group, with its heavy weighting of teachers and nurses. Within the female group the professions engage the attention of 12.3 per cent, more than double the percentage of men in this important class. No other major occupational group has as much as five per cent of all females who work.

Major Industrial Groups

The 1940 distribution of experienced workers according to the industry in which they are engaged loses sight of their different occupations. Thus a stenographer no longer appears as a clerical worker but as a member of a particular industry in which she is employed.

Of the twelve industrial groups, manufacturing is most important, using a fourth (23.4 per cent) of all workers. Agriculture, forestry, and fishing together are second, with 18.8 per cent. Wholesale and retail trade is third with 16.7 per cent. Thus three-fifths of the economic effort of the nation's workers is expressed in these three industrial groups. No other industrial division engaged as many as 10 per cent of the labor force: personal service, 8.9; professional and related services, 7.3; transportation, communication, and other public utilities, 6.9; construction, 4.6; government service, 3.9; finance, insurance, and real estate, 3.2; mining, 2.0; business and repair service, 1.9; amusement, recreation, and related services, 0.9.

While such percentages set forth rather clearly the relative importance of different industrial groups as users of manpower, it is necessary to report numbers of workers to get some idea of their real meaning. With 45,000,000 persons at work (omitting those on public emergency work) in the relatively good year 1940, one per cent would represent 450,000 persons. Thus construction, with 4.6 per cent of all workers, and regarded by some as a principal hope for expansion in the immediate postwar period, employed 2,056,000 workers in March 1940. An additional 709,000 experienced construction workers were unemployed at that time. Even though the construction industry should experience the much-hoped-for postwar boom, it is too small a user of labor greatly to contribute to full employment.

However, much of lumbering, manufacturing, and trade are stimulated by its requirements in raw materials and finished articles, and practically all other industries and services benefit from the added purchasing power of its workers. Hence any major expansion of construction would have a radiating influence upon other industries. No industry is completely closed off from all others; the expansion of one directly or indirectly benefits all.

If the cost of housing could be drastically reduced by changes in design and methods of fabrication, in cheaper materials, interest rates, and loan policies, in apprenticeship and union rules, a revolution in construction might be brought about, especially if the government should take a more active interest in the housing of the low-income groups.⁹ But only if such a revolution occurs can it be a prime factor in producing full employment. To become such, its proportion of the employed manpower of the nation would have to be advanced substantially above the five per cent now used in that industry.

The tendency to rely on one or a very few industries to produce full employment, or to furnish the stimulus that results in generally widespread prosperity, has been apparent among students of unemployment. Thus, the demand for the automobile is believed to have served this purpose during the decades 1910-1930. The demand for war goods has obviously rendered the same service in the current unparalleled burst of prosperity. But this demand has been made upon hundreds of industries for an enormous variety of commodities and services, and not for one or two. The intensified demand for workers in war industries, coupled with the reduction of qualified workers from industry to the Armed Forces, has lifted wages and greatly enlarged the spendable income of those directly affected. Nevertheless, many industries and large sectors of

⁹ "One of the important truths underlined by Nathan Straus, former Administrator of the U. S. Housing Authority, is that private industry provides very few homes for families in the lower half of the middle-income group and no new homes for families in the lowest-income third of the population. Private industry can build profitably for slightly less than half of the population composed of the upper-income groups.

"He believes that 'no conceivable change' in economic conditions after the war would put enough money into the pockets of the lowest-income group to enable them to afford good housing, unless the customary methods of privately financed building are replaced by public housing.

"Building construction is generally considered one of the most potent of all business stimuli. Straus declares that a public housing program to replace bad housing with good is 'one kind of public works which would provide millions of jobs in private industry and at the same time produce assets of the greatest value to the community,'" Labor Research Association, *Economic Notes*, June 1944.

the working population have received no benefits from the war and have even sustained losses.

While all divisions of industry may contribute to the continuation of prosperity through new demands for their products and services and the consequent added purchasing power of their workers, the greatest stimulus will derive from those with the largest employed populations, whose total income corresponds to their greater numbers. As has been noted, the two largest industrial divisions are manufacturing and agriculture and its associated groups, employing about 42 per cent of the working force in 1940. Closely allied with these primary producers are wholesale and retail trade, and transportation, communication, and public utilities, making a total of two-thirds of that force. It is upon these industrial divisions that the chief reliance must be placed for the maintenance of prosperity. Purchasing power drawn from these primary sources largely commands the labor engaged in the services which constitute the remainder of the industrial divisions listed.

As with the major occupational groups, the pattern of male and of female workers is considerably unlike in the grouping of the working population by industry, as shown by the percentages in brackets below. Two-thirds of all male workers (63.9 per cent) were in three major industrial divisions—manufacturing (24.2), agriculture, forestry, and fishing (23.5), and wholesale and retail trade (16.2). No other industrial group employed as much as 10 per cent of the male workers. Four groups each employed more than 10 per cent of all female workers—personal service (25.8), manufacturing (20.8), wholesale and retail trade (18.2), professional service (16.6). The remaining fifth of female workers was spread thinly over eight different industrial and service groups.

Wage and Salary Income of Workers

For the first time, the 1940 census endeavored to obtain facts concerning the labor income of the working population. The facts were reported for the year 1939 by the experienced labor force in a March week of 1940. Of the 52 million members of that force, 73 per cent indicated the receipt of such income, 22 per cent that they had had no such income. Business profits and receipts other than those derived from employed labor are not included in this summary.

Of the 52 million experienced workers in that March week

of 1940, much more than half (58.6) per cent), had wage or salary incomes of less than \$1,000 in the quite good year of 1939; another third (30.0 per cent) received from \$1,000 to \$2,000; a tenth (10.1 per cent) were favored with incomes from \$2,000 to \$5,000, while a hundredth part (1.1 per cent) of the 38 million persons reporting the receipt of wages or salaries earned \$5,000 or over. At the other extreme more than a tenth (11.1 per cent) of this population reported earned incomes of less than \$200.

The data are admittedly rough, serving to give a general picture of earned cash income in 1939 rather than a detailed analysis. They do not record other forms of income, such as food or shelter received by workers.

A sample study of census returns records the 1939 wage or salary income of certain occupational groups. The median wage or salary was for professional and semiprofessional workers \$1,803, for clerical and sales people \$1,275, for craftsmen and foremen \$1,552, for operatives at the semiskilled level \$1,142, for laborers except in mines or on farms \$980, and for farm laborers and foremen \$362. Among the last-named were an unknown percentage who received board, or board and lodging, as part of their pay.

It will be helpful to indicate the proportions of the several occupational groups receiving decidedly below- and above-average wages or salaries. Among professional and semiprofessional workers 5.7 per cent had less than \$600 for the year. The corresponding percentages for the other groups are: clerical workers 6.7, craftsmen and foremen 3.5, operatives 10.2, laborers 18.7, and farm laborers 78.1. At the other extreme are those favored workers who received above-average incomes of \$2,000 or more, the percentages being indicated by groups: professional and semiprofessional workers 43.1, clerical and sales workers 19.1, craftsmen and foremen 25.9, operatives 9.3, laborers 2.0, and farm laborers 0.4.

Such general figures conceal many conditions existing among all occupational groups. There are workers in each group, and substantial numbers of them, who receive as much wage or salary income as do some workers in any other group. Also large segments of the population in trade and agriculture and elsewhere who do not work for wages or salaries were not reported, so that at best this is only a partial display of the earned-income situation in the United States.

Racial Composition of the Labor Force

Of the 101 million persons 14 years of age and over in the United States in 1940, 91,428,000 were whites, 9,259,000 were Negroes, and 415,000 were people of other races. There is a noticeable tendency for proportionately fewer of the whites to be numbered in the labor force than of other races, the respective percentages being—whites 51.6, Negroes 58.2, other races 78.9. Among male workers the percentages were: whites 78.9, Negroes 80.1, other races 75.9. Among female workers the percentages were: whites 24.1, Negroes 37.8, other races 22.8.

The Oriental and other races do not have sufficient numbers in the labor force to present any particular problem in most areas of the country. But the Negro population is so concentrated, notably in the Southern states and some congested manufacturing centers of the North Central states, that they represent a considerable proportion of all workers there. In the Southern region they constitute approximately a fourth of the labor force, while in none of the other regions—Northeastern, North Central, and Western—were they as much as five per cent of all workers in 1940.

The work patterns of whites and Negroes were not the same in 1940. Noticeable differences, as indicated by the percentages of employed males in the several occupational classes, were as follows: Proportionately more whites (4.7) had achieved professional status than Negroes (1.6); a fifth of all Negro workers (21.1) were farm operators or tenants, while a seventh of whites (14.0) were in these occupations; a tenth of whites were business proprietors or officials (10.6), while only about one in a hundred Negroes (1.3) was in this class; a seventh of all whites (13.9) were in clerical and sales pursuits, while only two in a hundred Negroes (2.0) were so employed; more than a seventh (15.6) of all whites had become craftsmen, while only about four per cent (4.4) of all Negroes were skilled workers; an eighth (11.8) of all Negroes were in various types of repair-shop and similar service work, while only 3.7 per cent of whites were so engaged; a seventh (14.1) of all Negroes were farm laborers as compared with 4.5 per cent of whites; more than a fifth (21.2) of all Negroes were unskilled workers in factories and shops and on construction jobs, while the corresponding figure for male whites was only 7.5 per cent.

The work pattern among females of the two races differed

markedly in four of the thirteen occupational groups. The percentages are as follows: A seventh of the white female workers (13.7) were professional persons, mostly school teachers and nurses, but only 4.1 per cent of all female Negro workers were in this class; a third (32.8) of all whites were engaged in clerical and sales occupations, but only 1.3 per cent of female Negroes had attained this type of work; a fifth of all whites were operatives in factories and shops (20.3), as compared with a sixteenth of all Negro women (6.2); almost two-thirds (59.5) of all Negro working women were in domestic service, as compared with a ninth (10.9) of white working women.¹⁰

¹⁰ *The Labor Force in Wartime America*, by C. D. Long, National Bureau of Economic Research, 1819 Broadway, New York, Occasional Paper 14, March 1944 (50 cents), is an authoritative study of its subject which examines the concept "labor force" and makes refinements of the 1940 census data. Two general tables drawn from these data are presented in T. L. Tibbetts, "Vocational Guidance and the 1940 Census," *Occupations*, January 1944. A thoroughgoing analysis of the 1930 census data, made in the interest of social security, is W. S. Woytinski, *Labor in the United States* (Committee on Social Security, Social Science Research Council, Washington, D. C., 1938). See also National Education Association, *Research Bulletin*, Vol. XIV, No. 5, November 1941, for material drawn from the 1940 census.

CHAPTER II

THE PROFESSIONS AND SEMIPROFESSIONS

The experienced labor force of professional and semiprofessional workers reported for 1940, spread over 42 occupational groups and totaled 3,549,000, of whom 2,006,000 were males and 1,543,000 females. It comprised 6.8 per cent of the experienced labor force of the nation, 5.1 per cent of all working males, and 12.3 per cent of such females.

As a group, these workers constitute in many ways the occupational elite of the country. They are engaged in relatively "light" labor, employed at tasks performed usually under healthful surroundings, have a short working day, enjoy leisure and vacation periods for rest and recreation, are favored by better and more acceptable forms of working dress, have been accorded much above the average of community prestige, have school attainments much beyond the general run of workers, obtain above average remuneration, live at relatively high standards, experience less frequent and less prolonged unemployment during their working careers, and are not subject to such early working-age discard as many other workers. The prolonged and sometimes costly training of the standard professions, the slow growth of occupational earnings in them, and the relatively high cost of becoming established in the profession have made them less crowded than other occupational fields. Indeed, the relative scarcity of competent workers has assured members of these professions, when once established, exceptional incomes and other unusual advantages.

While over three-fourths of the entire labor force of the nation in 1940 were males, only slightly over a half (55 per cent) of professional and semiprofessional workers were of that sex. The difference is accounted for by the large proportion of women teachers and trained and student nurses in this group, making up approximately a third of the whole and influencing any over-all description of it.

A brief account of the number and decade trends in professional and semiprofessional occupations follows. Where percentage gains are shown in this and later sections, these may be compared with a 7.2 per cent increase in the population and a 12.4 per cent gain in the labor force 14 years of age and over.

Actors, Dancers, Showmen, Athletes, etc.

This field of professional work was followed by 97,361 persons in 1940, divided as follows: actors and actresses, 19,232; dancers, showmen, athletes, 54,254; motion-picture projectionists, 23,875. The total group made a slight gain from 1930 to 1940 of 2,619¹ reaching its peak number in the last four decades. About three-fourths of the group were men, but this proportion varies with the several specific occupations making up this collection of workers. Of actors, 60 per cent were of that sex; male dancers, showmen, and athletes were 70 per cent of their group; and males make up 99 per cent of all projectionists.

Architects

This is a relatively small group of professional persons—21,976 in 1940—spread thinly over the country and located principally in urban or metropolitan areas. Over 97 per cent of all architects are men, the profession being a difficult one for women to enter and to compete in with men. The number of architects increased steadily during the first three decades of this century, reaching a peak in 1930, from which there has been a decline of about 1,124. This is a net figure, for women made an appreciable gain. This showing follows a prolonged depression in which building construction experienced a great slump and many trained architects found it necessary to find other types of employment. Also the professional work and training of civil engineers sometimes so overlaps that of architects that the two are in close competition for the limited number of job opportunities available during a period of depression; hence some who formerly called themselves architects may have recorded themselves as civil engineers in the last census, as that is the more inclusive occupational designation.

Artists and Art Teachers

The number of such workers in 1940 was 62,485, of whom two-thirds were males. An expanding group since the turn of the century, its recorded gain in the last ten years was 5,232. The gain was made by men, women having shown a minor loss.

¹ In this, and following displays of trends from 1930 to 1940, adjusted figures are used, as explained in the Preface. Readers may well familiarize themselves at once with the material on 1939-44 trends and postwar prospects in certain industries on pages 99-113 below. The 1930-40 trends for particular occupations connected with these industries presented in this and succeeding chapters may then be viewed in relation to their wartime status and postwar circumstances.

The group is so loose, however, and its professional standards and requirements are so fluid, that it is difficult to say with any certainty that bona fide professional artists and art teachers are on the increase. The census indicates support of this view in its notation that this category was difficult to tabulate, and that many persons who had found emergency relief work in this field may have given their professional occupation as artist or art teacher when they had not been such before obtaining emergency relief work.

Authors, Editors, Reporters

This group of writing occupations numbered 77,619 in 1940, of whom 14,126 were authors and 63,493 were editors and reporters. Among authors about two-thirds were men, while about three-fourths of all editors and reporters were of this sex. Both groups gained in number during the last decade, authors having reached their peak number in the last four decennial reports. The recorded gain for authors from 1930 to 1940 was 1,801, or about 15 per cent. This was due to the increase in the number of men, for women showed a loss. With editors and reporters the comparability of the figures for the two censuses is low; but a gain is indicated, possibly amounting to 28 per cent.

Chemists, Assayers, Metallurgists

This is a relatively small group of professional persons—60,005 in 1940, of whom only 1,734 were women. The dominating group of chemists was extremely small until applied chemistry found its way into factories and commercial laboratories, largely as the result of our somewhat disastrous experiences during World War I. Since then it has grown rapidly, adding 11,996 new workers during the last ten years, or 25 per cent. Apparently women members of the group sustained a loss.

Clergymen

This is one of the oldest standard professions. In Colonial days and during the times of frontier settlement, clergymen led all other professions. In 1940 they numbered 140,077, less by approximately 5,794 than their peak number in 1930. They had declined in their proportion of all professional workers to less than 4 per cent. In 1940 only 3,308 members of this group were women, but this number slightly exceeds that for 1930.

College Presidents, Professors, Instructors

The number of persons in higher education in 1940 was 75,847, of whom somewhat more than a fourth were women. Despite the decade of depression which saw the closing of many financially weak institutions of higher learning, there was a gain of 13,323 persons employed in the management and teaching of our higher schools. The 20 per cent gain was made by men, women having shown no increase in number.

Dentists

The number of dentists was 70,601, of whom only 1,067 were women. While the number of dentists increased rapidly from 1910 to 1930, it remained almost stationary in the decade ending in 1940, the numerical gain being only 257. This net increase was due to a probable minor gain among men and a similar loss by women. The group is not keeping pace with the increase in population needing dentistry. Yet the profession offers unusual inducements, higher than average income, steadier work, and better than average conditions of labor.

Civil Engineers and Surveyors

The next group totaled 105,486, of whom 89,042 were civil engineers and 16,444 were surveyors. All but a fraction of one per cent were males. The group showed a gain of 3,400 workers in the decade 1930-1940, including a substantial gain for women. This is very much smaller than the previous decennial increase, accounted for in part, by a prolonged depression in which many trained in these professions had to change to other jobs to obtain employment. It is also partly explained by the fact that in the 1940 census persons under 35 years old, returned as professional engineers, were not coded as such unless they had had at least four years of college education. This rule could not be applied to the 1930 data for this group.

Electrical Engineers

Electrical engineers totaled 55,667, only 224 of whom were women. What has just been said regarding civil engineers applies even more to electrical engineers, for the depression found less use for their work. Hence, there is recorded an actual decline of 1,592 in the number of electrical engineers in 1940 from that of 1930, although women made a substantial gain. And this took place in a profession which had advanced rapidly in the successive earlier decades of this century.

Mechanical and Industrial Engineers

A further group of engineers numbered 95,346, of whom 85,543 were mechanical engineers and 9,803 were industrial engineers. Only 228 women were listed as mechanical engineers, and 74 as industrial engineers. Contrary to the trend just noted for electrical engineers, the number listed as mechanical and industrial engineers increased substantially in the last decade, showing a gain of approximately 37,729, or about 40 per cent, affecting both sexes. This is presumably a minimum, for the application of the rule of at least four years of college education for those under 35 years of age to the 1930 figure would probably reduce this figure. The total is the largest in the last four decades.

Chemical, Mining, and Metallurgical Engineers

Chemical, mining, and metallurgical engineers aggregated 21,373 in 1940, including 133 women. A decade gain is shown of 9,403, or almost 80 per cent, in which both sexes shared. This is presumably a minimum, for the reason given under the preceding item. The total is distinctly the largest in the four recent decades. Chemical engineers numbered 11,600, with 59 women; the number of mining and metallurgical engineers was 9,773, with 74 women. Trends of these two subgroups cannot be given for lack of 1930 data.

Lawyers and Judges

The number of lawyers and judges recorded by the 1940 census was 180,483, of whom only 4,447 were women. The gain of the last census decade was 19,878, or about 11 per cent, which, while substantial, was only half the gain made in the previous ten-year period. Both sexes shared in the gain. While private practice continues to be the usual form of employment for lawyers, public offices and government agencies attract an increasing proportion of trained lawyers. This trend has become quite pronounced with the development of the wartime program.

Musicians and Music Teachers

There were 161,536 musicians and teachers of music in 1940, of whom 66,256 were women. Their number declined about 5,158 in the last ten-year period. This is a consequence of several factors, not the least of which is the prolonged depression with its lowered standard of living throughout the country

which took its toll of music teachers. Mechanical reproduction of music has also had its depressing effect.

Osteopaths

Osteopathic physicians numbered 6,067, of whom 1,102 were women. The number of osteopaths increased somewhat from 1920 to 1930, but during the next decade suffered a decline of about 50 persons. This was a net result from a small increase among men and a similar loss among women.

Physicians and Surgeons

This substantial body of professional workers totaled 165,629, of whom only 7,708 were women. The profession made a gain of 11,826 in the last census decade—a 7.7 per cent increase, slightly above the percentage gain in the total population representing the patients or potential patients of these physicians. The proportion of women among physicians increased appreciably during the decade.²

Social Welfare and Religious Workers

This group numbered 110,369, of whom 74,423 were women. Social welfare workers totaled 75,197, and religious workers engaged in the various phases of social work numbered 35,172. This body of workers experienced a very substantial increase of about 70 per cent, as would be expected during a period of economic crisis when the welfare needs of the population became apparent to even the most selfish. The numerical increase during the last census decade was about 45,572, in which both sexes shared. The group has been expanding since the turn of the century.

Teachers

This is the largest group of professional workers, numbering 1,076,001 in 1940, of whom 806,860 were women. Included in the classification of teachers are 10,721 county agents and farm demonstrators. While the teaching force increased at a rapid rate during the earlier decades of this century, its last decennial gain was only 21,264, one of 2 per cent.

But this over-all figure conceals the fact that men teachers experienced an increase of 72,967, while women teachers lost

² See "Location and Movement of Physicians, 1923 and 1938," Reprints Nos. 2422, 2434, 2465, from *Public Health Reports*, 1942, 1943 (Government Printing Office, Washington, D.C.).

51,703 from their 1930 number. Here, again, is shown the result, in great part, of the prolonged depression of the 'thirties. There was a substantial down-grading at work. Men who normally qualified for jobs at higher pay in the professions and semiprofessions offered themselves for schoolteaching positions. Other men who had used the teaching profession as a steppingstone to higher professional attainments remained at steady work in schoolteaching. Women found the competition for the restricted number of schoolteaching positions keen and the pay no more attractive than that of available clerical jobs, so that many left the teaching profession. Others married, and because of the lessened demand for schoolteachers did not record themselves as members of the gainful labor force as they probably did in 1930.

In few communities can it be said that society was providing full educational advantages in 1940, so that there was no decline in the true demand for such services as teaching and little indication that the slowing down of the rate of growth of the profession was more than temporary. But the figures show how intimately the profession of teaching is tied up with general economic conditions, which determine to a large degree how many and what quality of teachers will be employed.

Trained and Student Nurses

Nurses form another large and important group of professional workers, numbering 371,066 in 1940, of whom all but 8,169 were women. A rapidly growing profession, the group increased by 76,877 persons in the last census decade, a 26 per cent gain in which both sexes shared. Classified in earlier census reports among domestic and personal service workers, and grouped together with midwives and untrained nurses, this emerging profession has only now been accorded separate professional status. But census enumeration is not infallible, so that what percentage of those recorded as trained or student nurses still belong in the other categories is not known.

Veterinarians

The small and relatively stable group of veterinarians totaled 10,957, of whom only 99 were women. The profession suffered a net loss of 906 persons during the ten-year period, women having increased nine times their small 1930 number. The loss among men was probably due to depression economies

in the care of pets and other animals. The prolonged and costly training involved and the relative low caste of the profession have undoubtedly played their part in retarding the growth in the number of veterinarians.

Librarians

Librarians numbered 38,607, of whom 4,061 were men. The group increased by 9,290 during the decade, or about 32 per cent, both sexes sharing in the increase. The group has grown steadily during the last three decades.

Professional Workers Not Elsewhere Classified

There are many professions, each followed by relatively few persons, which the census does not enumerate separately. They are grouped as designated above, the total being 90,492. Because of the "catch-all" character of the group, comparability from census to census is not possible, hence trends cannot be determined.³

Designers

This group, while closely akin to draftsmen, is regarded generally as representing a more technical and higher grade of professional service. It numbered 23,614 in 1940, of whom 8,871 were women. The group increased 3,106, or 14 per cent, in the ten-year period, both men and women experiencing a gain in numbers. There has been a steady growth of this group since 1910.

Draftsmen

There were 88,191 draftsmen in 1940, of whom only 1,554 were women. The number of draftsmen increased about 10,667 in the decade, or 14 per cent, including a gain for women. Here, again, is a professional group having lesser status and remuneration than the engineering profession which it so largely serves. Hence during a prolonged depression its ranks are apt to be increased by some from among the engineering profession who must find employment, even at the loss of status and compensation. This accounts for part, at least, of the increase shown during the nineteen-thirties.

³ In *Occupations* for January 1944 it is stated by Max E. Baer that a committee on postwar counseling of the War Manpower Commission estimated in this month that 15,000 vocational counselors would be needed by government, school, and private agencies—an increase of about 12,000 over the existing supply.

Aviators

A total of 6,299 persons reported the profession of aviator in 1940, only 51 of whom were women. The figures for 1930 were slightly larger than those for 1940; but the enumeration was admittedly difficult, so that no trend can be displayed.

Chiropractors

Chiropractors numbered 10,869, of whom 1,911 were women. The peak number of practitioners of this healing art was reached in 1930, the decline in the last ten years being 1,047, affecting both sexes.

Funeral Directors and Embalmers

Two related occupations—one, that of funeral director, being primarily business proprietorship; the other, embalmers, being composed of higher technicians or semiprofessional workers—sometimes are followed by the same individual. The group totaled 39,590 in 1940, of whom 2,174 were women. Both men and women engaged in these occupations increased in number, the combined increase for the ten-year period being 5,458, a 16 per cent gain.

Healers and Medical Service Workers Not Elsewhere Classified

Other forms of the healing art are practiced by relatively few individuals. Such medical-service workers other than those already listed totaled 20,575, of whom 9,950 were women. The group is increasing, the decennial gain being approximately 2,406, or about 13 per cent.⁴

Optometrists

Standards for optometrists have undergone considerable change in the last ten years, so that figures for the earlier censuses do not describe the same type of occupation recorded in the 1940 census. In 1940 the profession comprised 10,357 persons, of whom 475 were women.

⁴ "An interesting future appears in the occupation of physical therapist for the young woman who is healthy, emotionally mature, and interested in serving others, and who will acquire a college background with a major in biological sciences or physical education, followed by a physical therapy course in an approved school . . . Will the postwar demand for physical therapists be great enough to absorb the increasing supply necessary to a wartime emergency? As far as these needs can be predicted, the answer seems to be 'yes'." *Labor Information Bulletin*, February 1945; see also U S Department of Labor, Women's Bureau, *Bulletin* 203, No. 1, November 1944. A list of approved training schools in physical therapy is given in Betty A. Rice, "Opportunities for the Physical Therapist," *Occupations*, November 1943.

Photographers

The occupation of photography partakes both of business proprietorship and of employed technical performance. The census enumeration is unable to recognize this distinction, hence the group designation given. The number of photographers in 1940 was 37,641, of whom 5,063 were women. The record shows a gain for men and a loss for women. But the amount of gain for the decade is uncertain because of low comparability of the figures of the two censuses.

Radio and Wireless Operators

The radio group totaled 11,573, of whom 117 were women. Comparable data for 1930 are not available.

Technicians and Assistants in Laboratories

Laboratory workers constitute a classification not previously used by the census, embracing in 1940 a body of 67,158 workers, of whom 22,651 were women. They are working in commercial, research, and other laboratories as semiprofessional assistants.

Technicians

Other semiprofessional technicians are at work in shops and factories. In 1940 they totaled 8,088, of whom 821 were women. Comparable figures for these workers with earlier census records are not available.

Semiprofessional Workers Not Elsewhere Classified

An additional 80,131 semiprofessional technicians in a wide variety of callings make up a further group. Of the number, 10,327 were women. Comparisons with earlier census records are not possible.⁵

SUMMARY

Of 28 professional and semiprofessional groups listed above for which 1930-40 decade trends could be determined, 22 showed gains and only 6 indicated losses. This is unlike the

⁵ A report on the professions in wartime is expected from the U S Department of Labor, *Monthly Labor Review*, some time in 1945. Bulletin 203 of the Women's Bureau, listed for distribution July 15, 1945, refers to the outlook for women as medical laboratory technicians, practical nurses, and hospital attendants, and medical-record librarians. Such items are reported in *List of Selected United States Government Publications*, issued semimonthly by the United States Government Printing Office without charge.

situation of other divisions of the labor force to be noted. Depression conditions affect this category less unfavorably. Its degree of unemployment is not so great as that of less-favored working groups. Once trained and established, professional workers tend to accept a lower income rather than change their occupation. The decade increase of this group is also in line with the long-run trends of the services generally.

The 6 groups which sustained losses are those which apparently are more dispensable in relatively hard times. These groups are architects, clergymen, chiropractors, electrical engineers, musicians and music teachers, and veterinarians. In certain of these cases other than economic factors probably were at work as well.

Gains and losses over the decade did not affect the sexes equally. In several professions women gained while men lost in number; in others the reverse was true.

CHAPTER III

AGRICULTURE

Agriculture, while declining in importance as an occupation in the United States is, in the size of its labor force, the second largest major industrial section in the country. It is exceeded only by manufacturing, which comprises many hundreds of different occupations none of which has an occupational group as large as the working farm population.

In 1940 persons in agriculture, working as farmers, tenants, managers and foremen, and farm hands, numbered 8,833,324, or about 17 per cent of the entire labor force.¹ This is the largest single group of somewhat homogeneous occupations in American labor. Agriculture has held the lead since Colonial days. Despite urbanization and the increased emphasis on manufacturing and trade, agriculture will continue as the basis of livelihood for more people than any other occupation or family of occupations for many years to come.

In the last census record three-fourths (73 per cent) of all workers in agriculture were farm operators, either tenant or owners, and their unpaid family hands. One-fourth (26 per cent) were paid farm laborers. Only about one per cent were farm managers and foremen of farms. In the ten-year period 1930-1940, the number of farm workers declined 13.1 per cent. The decline of the respective subgroups was about the same—farmers and tenants 12.4 per cent, managers and foremen 11.1 per cent, paid farm laborers 11.3 per cent, and unpaid family workers 19.0 per cent. The last-named group differs from the others because of a probable undercount in the 1940 census.

This declining trend in the agricultural working population is not new. Proportionately fewer of the total population, and a smaller percentage of the total labor force, as reported in the ten-year counts of the census, have been engaged in agricultural pursuits since 1870. Seventy years ago farm work engaged the attention of more than half of all who labored; in 1940 less than a fifth were in farm work.

Prior to World War II, experts were generally agreed that the existing farm population was large enough to supply the

¹ The figures for agriculture are adjusted. See *Sixteenth Census . . . Population: Comparative Occupation Statistics . . .*, pp. 24-28.

food and fiber requirements of the American people and such foreign demands as were permitted by high tariffs which discouraged the exchange of commodities with other countries. This belief was strengthened during the years of the depression, when the lack of job opportunities in towns and cities stopped the flow of people from rural areas and produced a congestion on the farms; for the higher birth rate there was always required a substantial migration of youths to urban centers in order to find employment.

The fact that the farmer, unlike the industrial worker, could keep at work even under depression conditions created a food surplus and falling prices, which required numerous temporary expedients of the national government to discourage surplus production and somehow to maintain prices. In business depressions industrial output is curtailed more than farm output, with the result that the farmer must exchange more of his product for what he buys from industry. Farming, being essentially a competitive type of enterprise, is also at the mercy of controlled industrial enterprise, which can maintain prices by curtailing output, as most farmers cannot.

The conviction that the farm population was ample, if not excessive, even in normal times, was further supported by evidence of an adequate supply of farm products for the available purchasing power of the nation and for foreign demands, although there was much poor land under cultivation and only part-time labor really was required on many small-size farms, some of which were quite incapable of maintaining a decent scale of living for the farm family. In fact, the federal Department of Agriculture has declared that two and a half million of the six million farms in the country do not satisfy its definition of a suitable family-size farm. The relatively poor earnings of so many farmers and tenants were eloquent testimony of the excess of farm labor, for any continued large surplus of labor is uniformly accompanied by low earnings.

At the same time, the increasing use of machines on farms and technical improvements in farm management and processes had their depressing effect on the need for farm labor. The abandonment of many family-size farms followed, as indicated in part by these figures: from 1935 to 1940 the number of farms declined 10.5 per cent, while total farm acreage reached its highest figure. Average acreage per farm, by regions, was everywhere higher in the latter year than in 1935.

The large farm operator, with the use of machines, may offset low prices for his output by lower costs and by lower wages to hired hands. On the small farm, where labor is done with horses or mules, chiefly or wholly by members of the family, a decline in prices and farm income is felt by the family itself.

In this general view of the farm situation, however, one important feature was not sufficiently stressed. The demand for food reflects the ability of the whole population to buy it. If the domestic demand was fairly stable in prewar years, this was good evidence that the distribution of income among the various units of the population was fairly stable, too. It is well known that the marginal and submarginal families of workers never have had sufficient food, either in quantity or in variety, because their incomes were too small to purchase it. This enormous unrealized market awaits the time when these smaller incomes are enlarged, thus requiring a larger agricultural production and possibly an increased number of farm workers.

A shortage of farm labor was threatened by the urgent need for food shown in the present war effort. But, despite the diversion of a million and a half farm workers to the Armed Forces and the shifting of probably three million more from farms to nonfarm work, the supply of year-round farm workers was fairly well maintained. Youths and older workers were drawn upon, many family workers went into the fields, and others who had been only partially employed began putting in a full day. These facts attest the elasticity of the farm labor supply and the difficulty of appraising the "normal" size of the farming population.

It is probable that a vigorous, far-sighted policy of national and international food production and distribution can maintain the approximate levels of wartime farm activity in the United States. Only if this is formulated and carried out is there any hope of absorbing on the farm any appreciable number of new workers beyond those who will naturally return to the farm from the Armed Forces and from certain war industries. Returning veterans expecting to make a beginning in farming should have better-than-average land and equipment, for they will meet competition in a wartime production which has developed unusual capacity.² If a prolonged and disturbed

² See Monograph No. 23, Temporary National Economic Committee, *Agriculture and the National Economy* (Government Printing Office, Washington, D.C.), pp. 28 ff.; also, "Please! No More Crackpot Land Schemes for Veterans," *Saturday Evening Post*, November 18, 1944.

reconversion period follows the war, it can then be expected that some farm people will return from the cities to the farms, where, while their labor is not essential for profitable operation, they can at least find a place to live. This condition may temporarily halt the cityward trend of the farm population.

American farming is inextricably bound up with urban economic activities. It not only supplies a large and constant stream of young people seeking work in shops, factories, and offices, vigorous manpower of real value to the nation's life, but it also provides the food upon which the average city worker depends—for America is largely self-contained in the production and use of essential foods. Agriculture's fifth of the population buys much of the consumers' goods produced in urban areas, and its farm activities require machinery and motive power which keep many an American factory busy. Its schools call for trained teachers; scientific agriculture requires the services of other professionally trained persons; the farm population patronizes city mail-order houses, shops, and doctors' and dentists' offices to a degree never before experienced. In a very real sense there is but a single American community, the well-being of any segment of which directly affects that of any other.

Since the United States began making preparations for World War II certain important changes have occurred in agriculture which affect the number and kinds of workers engaged in farm activities. They sum up as follows: American civilians and members of the Armed Forces are eating a larger volume of and more nutritious foods than ever before; a very substantial percentage of certain foods consumed by Great Britain and a considerable quantity of high-protein foods going to Russia are produced on American farms; farm production and distribution are under centralized management and subject to government control as never before; prices are guaranteed in substantial measure and the product is moved through government channels.

The greatly increased volume of essential foods produced on American farms is much in excess of normal consumption demands of prewar days. The wartime food goals have been reached or passed in successive years, under a pressure which has achieved technological gains through the use of labor-saving devices and methods resulting in a substantial increase in productivity. Farm gross and net income have reached all-

time heights; farm land prices have increased substantially.³

What do these conditions portend? As plans are made for the return of peace, inevitably there is the necessity of making provisions for farmers returning from the armed services, and for a considerable number of returned soldiers, some with and others without farm backgrounds, who seek to establish themselves as farmers. Assistance to this end is being provided by the federal government, unfortunately at a time when purchase of land must be made at inflated prices, considerably to the advantage of speculators rather than to bona fide farmers. It may be noted incidentally that the percentage of the value of farm real estate belonging to farm operators has declined continuously for nearly half a century. In 1935 it represented only 39 per cent of the total value.⁴

In any case the prospect is that there will be a gain in the number of those striving to make their living off the land rather than the reverse. This will be considerably augmented if there is any serious or prolonged dislocation resulting in unemployment among city workers. While talk about subsistence farming as the future of many of these people makes good propaganda for certain interested groups, inevitably and in varying degrees such farmers become a part of the industrial-agricultural economy, buy and sell in the market, influence and are influenced by what occurs there. Only if the demand for farm products can be maintained and increased—and this depends on sustained purchasing power of city workers and enlarged foreign demands for particular products which American agriculture produces at an advantage over others—can either the present population on the farm be profitably employed or any hope of absorbing more farmers be realized. As so much of the answer is found in national and international policy, inevitably the American farmer, those interested in becoming farmers, and all who have any relationship with the training and placing of persons on farms will be alert to what takes place in this area of human affairs.

Agricultural problems affect particular parts of the United States differently. Were an agricultural map made covering production or value of different crops, or of the number of

³ In March 1944, farm acreage was being sold for prices almost 40 per cent higher than those of 1941 before the United States entered the war. During the year ended March 1, 1944, in ten states, prices equaled or exceeded the record increases from March 1919 to March 1920. Labor Research Association, *Economic Notes*, August 1944.

⁴ United States Bureau of Agricultural Economics, *Presentation before the Temporary National Economic Committee*, April 23, 1940.

persons engaged in agriculture, it would differ markedly from the geographic map of the states. There is a wide diversity of crops cultivated in certain areas and a marked singleness of crops in others.⁵ The number of agricultural workers required to produce some crops is much greater than that needed for others. The system of agriculture practiced in certain parts of the country likewise differs decidedly from that found elsewhere.

Of the total of agricultural workers in the United States in 1940, approximately half are found in the Southern states where cotton and tobacco are dominant crops. The great corn and wheat area of the North Central region contains about a third of all who labor on the land. The heavily industrialized northeastern portion of the country and the sparsely settled Western region each account for about 7 per cent of the total.

While agriculture is a way of life for the farmer's wife and daughters in which housework and work on the land both occupy their time, as a gainful pursuit it is primarily men's work. In 1940, 97 per cent of all farm owners and tenants were men, slightly more than that percentage of all farm managers were of this sex, also all but one per cent of farm foremen and 95 per cent of all paid farm hands were male. However, some 20 per cent of all unpaid family workers actually engaged in tilling the soil and doing outside farm work were female. Almost a half million females (493,744) constituted the entire paid and unpaid farm labor force of this sex. No marked trend has been noted over the years. Agriculture remains today, as it has been for several decades, predominantly a pursuit of men.

The term "farmer" is a much more complex one than appears at first glance. It embraces such broad differences, among others, as those of crop farmers, dairy farmers, stock raisers, florists, nurserymen, and vine growers. While a farmer may be distinguished from others in the labor force of any particular locality, even in that place his socio-economic circumstances and status may be quite different from those of some other farmer. The use of the term to describe persons engaged in agricultural activities spread over the length and breadth of the land conceals such striking differences as those of the tenant sharecropper and the cattle king, or such substantial differences as those of the New England farmer whose cash income is less than \$500 for the year and whose total investment does

⁵ See *Occupational Trends in the United States*, pp 78-82.

not reach \$5,000, and the California citrus grower whose cash crop yields more than \$10,000 and whose total investment is in excess of \$60,000. However, these are extremes. The great body of farmers are in the lower-income brackets and have much in common.

In a count of more than five million farmers and tenants, a partial glimpse is had of the economic status of American farmers in 1939. About 80 per cent of those reporting had cash incomes for the year of less than \$600; only a fraction of one per cent had cash incomes of \$1,400 or more in that year.

The occupational tasks of some farmers are closely akin to those of unskilled and semiskilled day laborers, while the tasks of others are practically identical with those of the business proprietor. While farmers are commonly thought of as owners of land and crops engaged in buying and selling for profit, and are consequently classified as "proprietors," the preponderance of the activities of most of them are of the manual-mechanical type performed by skilled and semiskilled workers.

Moreover, full ownership of farm property characterized less than half of all agricultural workers in 1935.⁶ The rapid mechanization of farming, the relatively high cost of land and high interest rates, the increase of fixed costs and economic risks in farming, and, over the years, unstable and uncertain farm prices point to the conclusion that outright ownership of market-producing farms is becoming more difficult to achieve, and part-ownership and permanent tenantry the more usual status of American "farmers."

Of the 2,312,000 wage-earning farm laborers recorded in the 1940 census, 802,102 reported that they had worked the entire year of 1939 and received money wages of \$100 or more. The median income was \$365; that is to say, half of the workers earned less than this figure, the other half more. What compensation was received by farm laborers in the form of board, lodging, garden lots, and farm produce could not be calculated from the returns. Three-fourths of all farm laborers had a cash income of less than \$600 for the good year 1939. Only one per cent had cash earnings over \$1,600, placing them in a preferred position as judged by the national average of full-time occupational earnings.⁷

⁶ United States Bureau of Agricultural Economics, as cited above; also *Occupational Trends in the United States*, pp. 87-92.

⁷ *Comparative Occupation Statistics*, p. 181.

The average American farmer and farm laborer reporting in 1940 had between 7 and 8 years of schooling; a fifth of farmers and farm laborers had less than 5 years or none. But about 7 out of every hundred farmers and farm managers had 4 years of high school, and about 3 in a hundred had gone on to college. Among farm laborers and foremen the record was only slightly less than this.

Such conditions as have been described in the foregoing pages need not necessarily continue. They are subject to change whenever public policy develops a program which will provide farm workers with their reasonable share of the economic, social, and cultural advantages now available to other groups in the labor force of the United States. As such a policy evolves, its effects upon agricultural workers may be considerable, diversifying their occupational tasks, increasing specialization among them, improving the cultivation of the soil and the husbandry of animals, elevating their socio-economic status, and perhaps making agriculture a "way of life" for an increasing number and proportion of the population. Unless this type of farsighted engineering is undertaken, the trends shown in the census and other records will continue to reduce the proportion of the labor force engaged in agriculture and to leave a large part of that force living under conditions below those of acceptable American standards.

CHAPTER IV

PROPRIETORS, MANAGERS, AND OFFICIALS

Exclusive of farmers and those on emergency work, this major division of the working population numbered about 3,835,000 persons, or 7.8 per cent of the total labor force. Only two of the eight major occupational divisions employed in the census classification are smaller. These are the professional and semiprofessional group and the protective service group. In spite of its small size, this is the personnel which is primarily responsible for the management and supervision of the business, governmental, and nonagricultural features of the national economy, and has a corresponding importance. It is predominantly male, women comprising only about 11 per cent of the total.

Some 65 occupational groups are included under the title of this chapter in the 1940 census. Some of these are specific occupations, such as railroad conductor; others are aggregations of occupations in which the particular designation of each is lost sight of, as with "proprietors, managers, and officials in utilities." In the latter case the grade of work performed may range from that of the president of a utility company, at a salary of \$100,000 a year, down to a district manager or agent of the same company in a rural area, who is paid at a clerk's rate and who does a wide variety of things none of which is comparable to the occupational tasks of the company president. Yet both are grouped together in the census report. This practice renders the figures for the group as a whole of somewhat doubtful value in comparing it with other occupations listed by the census. Crude as such returns are, they offer the only collection of national data available and, if examined with care, throw considerable light on what has happened among the majority of the 65 titles classified as "proprietors, managers, and officials, except farm," for the decade 1930-1940.

The reader will find the complete list of the titles under appropriate heads in Table II of the Appendix, with their 1940 numbers by sex. Here, and in subsequent chapters, reference will be made only to those for which trend data are available. Where percentage gains or losses for particular groups are shown below, they may be compared with a 7.2 per cent gain

in the total population and a 12.4 per cent gain in the labor force, over the decade.

Railroad Conductors

The number of these workers in 1940 was 47,465, none of whom were women. This is the smallest number recorded in the last four census reports. This enviable occupation in railroading is reached through an apprenticeship served as a brakeman, and sometimes in other capacities, requiring several years. The group was subjected to much rough handling during the depression decade, when railroad business dropped to a fraction of its former proportions. Workers in this highly organized trade suffered years of continuous unemployment, newcomers were discouraged by the seniority rules prevailing, and advances to the grade of conductor were relatively slow. It is therefore not astonishing to find a loss from 1930 of about a third, or some 25,867 conductors. That this is not a permanent condition is attested by the present employment in railroad work, for there is now the largest force of conductors in the history of railroading. But it does show that the general economic conditions of the nation determine, in the long run, what happens even to this well-protected and much-respected occupation.

Government Officials and Postmasters

The census classifies government officials and postmasters under three broad heads, inspectors, officials, and postmasters; and in four services, United States, state, city, and county and local. While comparison of subgroups for the census years 1930 and 1940 is not possible owing to differences in enumeration, the totals show that the number of such officials reached 239,813 in the latter year, a gain of 66,754 approximately, or about 38 per cent, in which both sexes shared. This total is the record figure for the category. Women numbered 34,956 in 1940. Numbers for the first two subgroups are shown in Table 2, Appendix. A reference to the third follows.

Postmasters

Postmasters are now subject to civil service and increase with the volume of business and from additional Congressional appropriations. In 1940 they numbered 39,160, of whom 16,661 were women. The total is the largest shown in the last four

censuses. Both sexes shared in the decade gain, an advance in number for both of 4,739, or about 14 per cent.

Country Buyers and Shippers of Livestock and Other Farm Products

This group numbered 40,416 in 1940, of which only 549 were women. It suffered a decline from 1930 of approximately 4,900 persons, or about 11 per cent, but there was an increase among women.

Credit Men

The dependence of business on credit men increased during the chaotic times of the depression. Their number in 1940 was 31,110, a decade gain of 8,620, or about 38 per cent, affecting both sexes. The number of women in 1940 was 3,723.

Ship Officers, Pilots, Purser, and Engineers

The number of maritime officials in 1940 was 35,155, of whom only 117 were women. The group sustained a heavy loss during the depression, amounting to about 11,679 persons, thus reflecting the forces at work curtailing American shipping. The total is the smallest figure recorded in the last four census reports; but the very small number of women in 1930 increased sharply.

Officials of Lodges, Unions, Societies, etc.

This quite heterogeneous group of occupations totaled 25,764, of whom 4,405 were women. Even though the 70 per cent increase of over 10,000 workers may suffer from some inaccuracies in the count, the increase is substantial, for both sexes.

Purchasing Agents and Buyers Not Elsewhere Classified

General purchasing agents numbered 33,359, of whom 2,733 were women. The category is not closely comparable in the two censuses; nevertheless it appears that both men and women increased in number, possibly by 18 per cent for the group.

Proprietors, Managers, and Officials in Mining

These workers in the mining industry numbered about 32,000, of whom only 394 were women. The group remained at

about the numerical level of 1930, with a possible slight gain, and more than a slight gain among women.

Proprietors, Managers, and Officials in Construction

This large body of undifferentiated workers totaled about 125,696 in 1940, of whom 1,258 were women. There was a substantial net loss in the number of such workers during the ten-year period, possibly of 65,000 workers. Women, however, made a gain.

Proprietors, Managers, and Officials in Manufacturing

The volume of employment in manufacturing suffered greatly at the trough of the depression but had about regained its 1930 level by 1940, when the number of these officials was 428,328, of whom 18,282 were women.

Railroads (including repair shops)

The number of proprietors, managers, and officials in the railroad industry in 1940 was 32,242, among them only 281 women. The group sustained some loss from 1930; women made a gain.

Street Railway, Bus, Taxicab, and Trucking Service

The number of proprietors, managers, and officials in these street-transportation services was 35,882 in 1940, recording a decade loss of about 7,470. In spite of this loss in the total, the number of women increased appreciably to 1,136 in 1940. Figures for the several subgroups are given in Table 2, Appendix, by sex.

Warehousing and Storage

Owners, managers, and officials in this form of business totaled 7,599 in 1940, of whom only 185 were women. While comparability with the 1930 figures is not high, it appears that the number of such workers diminished slightly over the ten-year period.

Miscellaneous Transportation

Other forms of transportation, such as aviation, ferries, etc., required the services of owners and officials to the number of 13,303 in 1940, of whom 512 were women. The group experienced a considerable gain over 1930, one of approximately

2,744 persons or about one-fourth. Both sexes shared in the gain.

Communication

Officials in communication services numbered 23,361, of whom 3,251 were women. The increase from 1930 was about 3,208, most of which was experienced by men.

Eating and Drinking Establishments

Proprietors, managers, and officials in these establishments constitute a growing body of workers, totaling 273,163 in 1940, of whom 66,104 were women. Such businesses show so much dissimilarity that the personnel involved vary greatly in competency, income, and status. The group as a whole made a decade gain of approximately 94,525 persons, reaching its highest figure in the last four census reports. This is evidence of a continuing change in our habits, with more "eating out," of the effect of the return of the saloon, and of the increase of soft-drink places.

Wholesale and Retail Trade

A very large segment of the entire group of proprietors, managers, and officials is included in this group of "traders." Excluding those just considered as concerned with eating and drinking establishments, the group numbered 1,926,882 in 1940, of whom 186,576 were women. It showed a small increase over the decade, approximately 126,701 persons, involving both sexes. Subgroups in retail trade follow.

Retail Food and Dairy Products Stores

About two-thirds of a million persons, 663,131, were occupied as proprietors, managers, and officials in retail food stores, among them 69,376 women. The group made a minor gain in number during the decade of about 16,488. This was a net gain due to a small loss among men and a 50 per cent increase among women. For the 1940 numbers of the subgroups by sex, see Table II, Appendix.

Retail General-Merchandise, Apparel, and Shoe Stores

Proprietors, managers, and officials in these stores numbered 213,696, of whom 54,767 were women. The total is the smallest of the four recent decade reports. The figures were

recorded at the end of a decade of depression which resulted in merging and bankruptcies, the increase of chain stores, and a falling off of consumer purchases in many localities. The result is shown in the reduction of this personnel by 80,364, a loss of 27 per cent over the ten-year period. As this is one of the chief fields of opportunity for those seeking independent status in the American enterprise system, the figures and trends are worthy of thoughtful consideration as depression phenomena. For the 1940 numbers for the several subgroups, including "milliners," see Table II of the Appendix.

Retail Limited-Price Variety Stores

Such stores, starting out as "five and dime" chains, have increased through the last three decades, both as chains and as independent establishments. In 1940, proprietors, managers, and officials in such establishments numbered 18,214, a gain of about 7,959 over 1930. Thus a 77 per cent increase in such officials occurred during a depression decade in which general-merchandising stores lost 27 per cent of such workers. Thus, in the shift from one related type of merchandising to another, a net loss is manifested in the number of retail proprietors, managers, and officials. The number of women in these positions in limited-price stores in 1940 was 2,905. The decade gain was shared by both sexes.

Retail Furniture and House-Furnishing Stores

Proprietors, managers, and officials in such stores numbered 37,214, of whom 2,503 were women. The number of such workers increased over the ten-year period, due, probably, to the emphasis placed on new household furnishings and modernizing activities.

Motor Vehicle and Accessories Retailing

Owners and officials in these establishments in 1940 were more numerous than in any earlier period. They numbered 80,996, of whom 1,244 were women. The increase over 1930 was approximately 15,799, or about 24 per cent.

Retail Filling Stations

Proprietors, managers, and officials of such establishments considerably more than doubled over the decade, totaling

183,655 in 1940, of whom 4,838 were women. This was the period in which the oil companies, under pressure from the Anti-Trust Division of the federal government, divested themselves of their chain-owned filling stations, many former employees recorded as such in 1930 being listed in the 1940 census as owners or managers. Probably this accounts for a considerable part of the increase in number of such workers, but there was an unmistakable increase in the number of independently operated filling stations as well. With wartime restrictions these establishments closed at an alarming rate, the highways exhibiting a dismal appearance of abandoned and boarded-over stations. It is probable that these will be reoccupied when the restrictions are removed.

Retail Drug Stores

Proprietors, managers, and officials in drugstores, with which pharmacists are included, totaled 103,497 in 1940, of whom 5,835 were women. The census had some difficulty in differentiating pharmacists in the two censuses. In the last decade the number of workers as described declined somewhat, the loss being borne entirely by males. There had been a sharp increase in this personnel over the 1920-30 decade. The 1940 numbers for the two subgroups are shown in Table II of the Appendix.¹

Retail Hardware and Farm-Implement Stores

Owners and officials in hardware stores numbered 47,087 in 1940, among them 1,582 women. The group sustained a small decrease in number during the ten-year period; this was owing to a reduction of men, for the number of women gained somewhat.

Retail Jewelry Stores

Owners and officials in jewelry stores totaled 19,207 in 1940, including 1,300 women. The group suffered a loss from its number in 1930 of 4,418, although the number of women increased. The 1940 total is the smallest of the last four census records.

¹ " . . . we can estimate that if the present trend of losses and replacements continues, the net loss in five years will be at least 7,000 pharmacists, which is probably more than 10 per cent of the number now in practice. We got that figure by careful evaluation and careful weighing of information from many dependable sources." E. L. Bernays, *Occupations*, January 1944.

Retail Fuel and Ice Establishments

Owners and officials in these establishments numbered 45,706, of whom 1,300 were women. As with jewelry stores, the total group diminished during the decade, the loss being 3,818, while the number of women almost doubled.

Other Retail Trade and Wholesale Trade

The 1940 numbers for six additional retail categories and for wholesale trade are shown under this caption in Table II of the Appendix. Comparable 1930 data are not available. For the group of proprietors, managers, and officials concerned there was a decade gain of approximately 18 per cent, shared by both sexes.

Finance

The owning and managerial group in finance includes salesmen. Its number in 1940 was 145,416, including 6,782 women. The group suffered a decline of 48,593 persons from its peak number in 1930, a loss of about one-fourth. Such workers are especially exposed to the storms and stresses of the economy, so that the prolonged depression took a heavy toll among them. Both sexes were adversely affected. See Table II, Appendix, for the 1940 numbers of the two subgroups.

Insurance

Proprietors, managers, and officials in insurance totaled 39,735 in 1940, of whom 2,832 were women. While comparability of the figures for the two censuses is low, the reported gain of about 5,738, or 17 per cent was exhibited by both sexes.

Business Services

There is a wide variety of business services, such as mimeographing and duplicating, machine tabulation, business consultation, etc., which have become sufficiently specialized to set up for themselves. The numbers for owners and officials in this group are reported for 1940 in Table II of the Appendix.

Automobile Storage, Rental, and Repair Services

Owners and officials in such establishments numbered 61,712 in 1940, among them being 910 women. The group suffered a considerable loss over the decade, amounting to approximately 25,748. This 30 per cent net loss was sustained by males, for the small number of women increased.

Hotels and Lodging Places

Owners and operators in such establishments numbered 66,935, of whom 21,879 were women. Comparability is low in this case, but there appears to have been a slightly larger number in 1940.

Laundrying, Cleaning, and Dyeing Services

Owners and officials in such establishments numbered 53,694 in 1940, among them being 9,140 women. The number for the group increased somewhat over the ten-year period by about 4,233 persons or 8 per cent. But the gain was made by women, the number of men having slightly diminished.

Theaters and Motion Pictures

Owners, managers, and officials of motion-picture houses, theaters, and playhouses totaled 26,841 in 1940, including 1,411 women, the total being the highest in the last four decade reports. Both sexes increased in number during the decade, the gain for both having been about 4,329, or almost 20 per cent.

Miscellaneous Amusement and Recreation

Owners and officials of numerous other types of amusement and recreation establishments numbered 44,003, among them being 2,511 women. As with the corresponding group in motion-picture houses, this group made a substantial gain in number over the depression decade, amounting to 4,554 persons and reaching its peak figure in 1940. Both sexes shared in the increase.

SUMMARY

The 1940 census was taken in March of that year. It thus came at the conclusion of a decade of depression, toward the close of which a considerable recovery had taken place. It is interesting to note the effect of such a decade on the size of the group of proprietors, managers, and officials chiefly responsible for the direction of the nation's nonagricultural economy.

Of the occupational groups listed under this major division of the labor force, a change in number from 1930 to 1940 is indicated in 33. In spite of the increase in population, 14 of these groups showed a loss in personnel, including some of the key divisions of business enterprise such as construction, gen-

eral merchandising, finance, marine, railroad, and street transportation. The luxury retail trade also lost personnel. Increases were shown by 19 groups. Understandable depression gains were made by credit men, the insurance personnel, managers and owners of limited variety stores, and officers of lodges, unions, and societies.

A population with still limited resources demanded the expansion of the automotive and filling-station groups, while other groups carried forward from earlier decades an advancing long-run trend, among them the eating and drinking, out-of-home laundering, and amusement-and-recreation personnel. There was evident a noteworthy tendency for the number of women to increase where the number of men diminished.

CHAPTER V

CLERICAL, SALES, AND KINDRED WORKERS

The large force of clerical and sales workers, totaling 8,307,490, is made up of 4,809,619 males and 3,497,871 females. It is the largest but one of all groups of female workers, and one of the largest groups of males. Of the total experienced labor force about a sixth are in these various clerical occupations; among male workers the figure is an eighth and among females is over a fourth of all workers.

The census enumerates 31 different clerical-and-sales occupational groups, some of which are distinctive occupations and others are made up of occupations having some affinity. The relationship between occupations on the clerical level is loose at best, the binding idea being that they serve or promote transactions and report or record such activity. There are clerical occupations requiring great skill and highly developed experience in which the compensation is exceptionally high; such are chief-clerk positions in certain business establishments, or head-sales-clerk positions in certain large public and private enterprises. There are, again, routine stock clerks who perform simple repetitive tasks requiring only easy manual operations and clerical checking, in which pay is very low. Such widely differing occupations have relatively little in common, and their collection under a single caption by the census is for convenience of tabulation only. Yet in justification of the census it must be said that the clerical group is characterized by five major occupational groups, stenographers and typists, office clerks, clerks in stores, bookkeepers, and salespeople, who total more than six of the eight and a third million clerical workers.

An explanation of the remarkable growth of this body of workers is offered in *Occupational Trends in the United States*, chapter xi, pp. 584-99.

Baggagemen

Baggage handlers in transportation numbered 6,099 in 1940, of whom none were women. They suffered a loss of more than 3,000 in the last census decade, and reached their lowest figure in four decades, a decline of approximately a third of their number.

Express Messengers and Railway Mail Clerks

This group of traveling clerks totaled 22,337 in 1940, of whom only 137 were women. They, too, suffered a substantial loss in the ten-year period, a reflection of the generally depressed business conditions affecting the country, having declined 3,271 in number.

Bookkeepers, Accountants, Cashiers

This large group of clerical workers totaled 931,308 in 1940, of whom approximately half, 475,685, were women. In the depression decade the volume of business declined markedly, then began to recover, so that by 1940 it had picked up substantially. The group, as a whole, declined 8,646 from 1930 to 1940. This was the net result of a loss sustained by women in these occupations and a gain for men. It would appear that men successfully compete with women for such employment during times of economic stress when the pressure for a job is great. The expansion of the group had been rapid prior to 1930.

Ticket, Station, and Express Agents

The number of these agents in 1940 was 40,377, of whom 2,214 were women. This group apparently experienced a slight decline in the last decade from a loss of male members, for women in these occupations made a slight gain. Comparability was not high for the two decades.

Mail Carriers

Government mail carriers totaled 122,920 in 1940, of whom 1,544 were women. In the ten-year period the number of both sexes increased somewhat, the total gain being 2,804. The group has been steadily expanding in recent decades.

Messengers, Errand and Office Boys and Girls

These time-honored Horatio Alger beginners in the business world numbered 60,740 in 1940, of whom 2,964 were females. With the installation of more intercommunication systems and the generally depressed conditions in business during the last decade, their number declined substantially, possibly about a fourth.

Telegraph Messengers

Such workers numbered 16,616 in 1940, of whom only 308 were females. Despite technological gains in telegraphy, the

increased use of the telephone, and other influences at work to reduce the need for such messengers, their number remained at about the same level as in 1930.

Office-Machine Operators

The census is attempting to separately enumerate workers who handle office machines exclusively. Their number was 64,178 in 1940, a heavy increase from 1930. Most office-machine operators are women, only 9,104 being men in 1940.

Miscellaneous Clerical and Kindred Workers

The census groups shipping and receiving clerks, stenographers and typists, office clerks, and persons similarly employed under one caption. Unfortunately the trend for the particular occupational groups cannot be indicated, the figures of the two decade reports being incomparable. The group as a whole numbered 3,378,277 in 1940, of whom slightly more than half, 1,808,080, were women. Both sexes recorded a gain in the last ten-year period, the total increase being 624,197. This occurred during a depression when private business suffered greatly. But during that time other sectors of the economy, such as government bureaus, which make much use of these several occupations, were expanding. The net effect was an increase of almost a fourth in the number of these clerical and office workers. The numbers and sex composition of the subgroups in 1940 are shown in Table II, Appendix.

Telegraph Operators

Telegraph operators numbered 42,562 in 1940, of whom 8,448 were women. The number suffered a marked decline in the ten-year period, of possibly 11,000, in which both sexes shared. Decade comparability was especially low.

Telephone Operators

The large group of telephone operators in 1940 numbered 208,319, of whom all but 11,257 were women. In the depression years the telephone business experienced a sharp decline, but it made a substantial recovery by the time the last census was taken in the spring of 1940. Yet, with technological factors at work, such as the increasing installation of dial systems which eliminate manual operators, and with the merging of companies, a noticeable reduction in the number of telephone op-

erators occurred—about 40,408 from 1930 or a loss of 16 per cent in the ten years. In the three previous decades the group had made steady advances in number.*

Agents Not Elsewhere Classified

A heterogeneous group of agents who cannot be classified by the census as salespeople totaled 92,341, of whom 8,881 were women. Comparability was low, but a decade gain is indicated.

Library Attendants and Assistants

Library employees numbered 20,203, of whom all but 3,535 were women. Many women workers were added to the labor force by various public-relief projects. But both sexes shared the gain.

Attendants in Physicians' and Dentists' Offices

These workers numbered 31,209 in 1940, of whom only 1,507 were males. While the census enumerations are not closely comparable, it appears that both sexes increased in number considerably during the last decade. The total is the highest in the last four decades.

Bill and Account Collectors

The number of collectors in 1940 was 43,909, of whom only 3,496 were women. Women collectors made the slight gain for the group during the ten-year period.

Hucksters and Peddlers

Peddling, in the earlier days of settlement of the country so essential to the distribution of goods, was followed by only 56,695 persons in 1940, of whom 2,498 were women. Much of their activity is now confined to street sales in our cities. They experienced a loss of about 2,692 workers in the decade.

Newsboys

This designated group numbered 56,730 in 1940, of whom 1,097 were girls. Comparison with 1930 was complicated by changes in age. It is probable, however, that the number of older newsboys increased sharply—perhaps a depression phenomenon. The total was much the largest figure in the last four decades.

Insurance Agents and Brokers

This large body of insurance workers numbered 249,322 in 1940, of whom 13,321 were women. Despite depression conditions, the number of insurance agents remained about stationary, the loss in the ten years being about 2 per cent. Here is a reflection of the times in which many white-collar workers had to turn to insurance selling in order to find employment. While the number of men in such work, even under the pressure just described, declined, the number of women increased. From 1910 to 1930 this group had made substantial gains.

Real Estate Agents, Proprietors, etc., and Managers and Superintendents of Buildings

This collection of somewhat unrelated occupations totaled 213,696, of whom 43,108 were women. They, too, suffered considerably during the depression, the loss in numbers being about 43,143, or more than 17 per cent. Unfortunately, the figures for the three specific occupational groups are not comparable for the two censuses. Their numbers by sex are shown in Table II, Appendix.

Auctioneers

Auctioneers numbered 3,537 in 1940, of whom only 183 were women. There was a slight decline from the number in 1930.

"Clerks" in Stores

It has always been difficult for the census to distinguish between salespeople and clerical workers in stores. In previous censuses the two groups were confused. In 1930 and 1940 the attempt was made to eliminate office clerks, so that in effect all but a small fraction of those listed are really salespeople. The group numbered 525,591 in 1940, of whom somewhat less than half, 219,312, were women. In the decade of 1930-1940 a substantial increase occurred, of 132,033, some of which may be illusory owing to the census enumeration just described.

Demonstrators

Demonstrators numbered 10,521 in 1940, of whom only 1,818 were men. The group experienced a gain of about 2,762 during the decade. The total is the highest in the last four decades.

Miscellaneous Salespeople

A collection of salespeople for which decennial trends can be given with some confidence for the total but not for the groups of which it is composed includes buyers and department-store heads, canvassers and solicitors, traveling salesmen and agents, station attendants of several kinds, and general salespeople. This large collection of workers numbered 2,455,692 in 1940, of whom 634,549 were women. The group experienced a gain of 176,040 in the last decade. See Table II, Appendix, for the number in subgroups in 1940.

SUMMARY

From the examination of 23 occupational groups which permit comparison of the figures for 1930 and 1940 for the important white-collar category of clerks and salespeople, it appears that in the decade as a whole 11 groups enlarged, 11 diminished, and 1 was practically unaltered. Such are the uneven affects of depressed and recovery business conditions, in spite of a substantial increase in the general population.

A decline is shown in the railroad industry, in business accounting, in communication, and in miscellaneous messenger service, in real estate and building management, and among auctioneers. Depression gains were perhaps to be expected from economies in the expansion of office-machine work, among bill-and-account collectors, and with older newsboys.

The increase among salespeople may be due to the enlarged population, the urgent need of disposing of shelf surpluses, and the recovery in the latter part of the decade. Long-run trends are evidenced in the increased number of mail carriers, miscellaneous office workers, library workers, and physicians' and dentists' assistants. There are several instances in which the sexes were differently affected within the same occupational group.

CHAPTER VI

CRAFTSMEN, FOREMEN, AND KINDRED WORKERS

Under the heading of craftsmen and foremen, 78 different occupational groups are designated by the census. This means that many different occupations in the crafts have been combined, at times, into larger and more inclusive groups. Thus cranemen, hoistmen, and construction-machinery operators constitute a single group, although their occupations differ considerably. Fortunately, this condition is found in only a minor number of groups described.

Considerable difficulty was met in obtaining a precise description of some occupations. Thus, painters are reported to include decorators, craftsmen painters, factory painters, and maintenance painters. The skills involved, and other measures of an occupation, cover a substantial range, so that the class name "painter" does not designate a homogeneous body of workers. The census compilers did what they could to segregate craftsmen painters from the other types of painters just listed.

Another difficulty which faced those who tried to ascertain the status of the crafts was the result of technological change. It was only natural that some hand glass-blowers, for example, formerly a very highly skilled trade, continued to give their occupation as such when their employment had been degraded by the introduction of automatic and semi-automatic machinery to the level of semiskilled machine tending. Then "machinist" is a particularly unsatisfactory classification, for many machine tenders who are actually semiskilled workers list themselves as machinists. And it is not altogether improbable that helpers and apprentices fudged a bit to the census enumerator so that some at least who appear as carpenters, masons, plumbers, and the like are not full-fledged craftsmen. Such qualifying factors must be taken into account when reading the figures on the crafts.

Craftsmen, foremen, and kindred workers are at the top of the manual-labor occupations. Theirs is the status toward which most unskilled beginners and many semiskilled operatives strive as they attempt to mount the occupational ladder;

for not only the satisfaction of being among the skilled artisans but also better pay is involved, as are also higher status, closer organization and control of the trade and entrance to it, improved bargaining power with employers, and better control of employment and working conditions. These experienced workers numbered 5,877,094 in 1940, of whom 5,751,857 were men and 125,237 were women. Eleven out of every 100 workers were in this group (11.3 per cent) made up of fifteen of every 100 men (14.6 per cent) but only one out of every 100 women (1.0 per cent). How the individual groups fared is indicated below.

CRAFTSMEN

Bakers

In one group are included bakers who are artisan proprietors and those who work at their craft for others in commercial bakeries, factories, or institutions. Bakers numbered 144,296, of whom 10,517 were women. While the figures for 1930 are not closely comparable, there was an increase in the number of bakers during the last decade, probably of more than 13,000. Both sexes experienced a gain in number. The total is the highest in the last four decades.

Boilermakers

Of a total of 32,982 boilermakers, only 73 were women. Comparability is especially low in this case, but these workers may have suffered a considerable loss during the depression, possibly amounting to more than 9,000.

Cabinetmakers

There were 58,837 cabinetmakers in 1940, of whom only 481 were women. It appears that the trade remained about stationary over the last census decade.

Pattern and Model Makers, except Paper

Skilled pattern and model workers numbered 33,033, of whom 286 were women. Their number probably increased somewhat in the ten-year period, the decade gain being about 1,498. There has been a slow gain in the total over the last three decades.

Carpenters

The time-honored craft of carpenter is numerically important in the American labor force, totaling 766,213 in 1940, of whom only 2,335 were women. The decade of depression dealt quite roughly with carpenters, reducing their number by 153,919, or about 17 per cent. However, the number of women carpenters increased from about 50 recorded in 1930 to their 1940 number. The loss in skilled carpenters, as with other artisans in the building trades, would undoubtedly have been much greater had it not been for the emergency relief projects which kept many from losing their skills and dropping out of their crafts. For the construction industry was especially hard hit by the depression, as is somewhat revealed by census of business figures showing a loss from 1929 to 1939 of more than a fourth (27.4 per cent) in dollar value of business for construction firms reporting \$25,000 or more annually, and a decline of a third (35.3 per cent) in annual payrolls.¹

Some part of the decline in number of carpenters may be accounted for by the time of year, March 1940, when the census was taken; for in some parts of the country this is a slack season in construction, and some who ordinarily worked as carpenters may have been otherwise employed then. The carpenter group had grown steadily through the three previous decades.

Compositors and Typesetters

The highly organized craft of compositors numbered 174,312, of whom 8,005 were women. It suffered a decrease of about 5,647 in the last decade. This was probably due to generally depressed conditions; for radical changes in the craft, such as the automatic typesetter and the offset press, have not as yet shown their full effect. The group had a steady increase over the three previous decades.

Electricians and Power-Station Operators

Skilled workers in electricity numbered 249,447, of whom 1,436 were women. Their number declined 28,067, or 10 per cent in the last ten-year period. It is probable that this loss was sustained largely by the group of electricians. Figures for the two subgroups for 1930-40 are not comparable. See Table II, Appendix, for their number in 1940.

¹ *Census of Business, 1939*, Vol. IV, p. 24.

FOREMEN, BY INDUSTRY

Listing foremen on the basis of industry is a new departure in census classification. It involves segregating by type of industry those workers, usually master craftsmen, who have "graduated" to the level of supervising officers of varying degrees and types of responsibility. Their description follows.

Construction Foremen

Unfortunately, the census does not separate by type of construction the foremen listed in 1940. Their number was 74,663, of whom 389 were women. Although the 1930 figure is not closely comparable with that of 1940, the group engaged as foremen in construction is assigned a very substantial gain, of some 29,337, or almost 65 per cent.

Foremen in Manufacturing

A large body of foremen are at work in manufacturing, numbering, in 1940, 302,457, of whom 31,606 were women. The gain for the decade was 7,082. The numbers in certain industrial subgroups can be separated into 6 groups as follows:

1. In *food and kindred products*.—These foremen numbered 30,355, of whom 3,516 were women. Both sexes showed a decennial gain, totaling 7,236, an increase of almost a third (31 per cent) in their number.

2. In *textiles, textile products, and apparel*.—Foremen in this industry numbered 49,073, of whom 16,195 were women. The decennial gain was substantial, being approximately 5,503, or about 12 per cent.

3. In *lumber, furniture, lumber products*.—Foremen numbered 23,473, of whom only 498 were women. The group suffered a loss of 2,048 in the last decade.

4. In *paper, paper products, printing*.—Foremen in these industries numbered 19,469, of whom 2,188 were women. Comparability is low in this case, but the group apparently remained about stationary in the ten-year period.

5. In *chemicals, petroleum, coal products*.—Foremen numbered 22,485, of whom 1,310 were women. The group apparently increased slightly in the last decade. Comparability was low.

6. In *metal industries*.—Foremen in this group of industries numbered 112,939, of whom 2,675 were women. With closely comparable figures, the decennial gain was 3,071, or 28 per cent.

Foremen in Transportation and Other Industries

1 *Railroads, including repair shops.*—Under railroads is found the largest single component group of foremen in transportation, etc., numbering 49,573, of whom 101 were women. The group suffered greatly during the depression, losing 30,821, or more than a third (38 per cent) of its number.

2. *Street-railway and bus lines.*—Foremen in city types of transportation numbered 4,203, of whom only 20 were women. They, too, suffered from depression, losing about 1,974 from their number in 1930. The total is the lowest in four decades.

3. *Miscellaneous transportation.*—Other forms of transportation employed 11,498 foremen, of whom only 80 were women. The group remained about stationary over the decade. Comparability was low.

4. *Communication.*—Foremen in communication numbered 8,474, of whom 221 were women. Although the figures are not closely comparable, this group suffered a loss of possibly 1,933 from their number in 1930.

MISCELLANEOUS SERVICES

Mining

Foremen in the extractive industries numbered 28,244, of whom only 61 were women. The group declined about 1,829 from 1930. Comparability was low.

Wholesale and Retail Trade, including Store Floormen and Floor Managers

Merchandising foremen numbered 39,124 in 1940, of whom 4,870 were women. This group declined approximately 1,466 during the decade. Comparability was low. See Table II, Appendix, for the 1940 figures for the two subgroups.

Business and Repair Services

Foremen in business and repair services numbered 6,164, of whom 212 were women. The total declined about 2,761 from that of 1930.

Personal Services

Foremen in personal services numbered 7,400, of whom 2,806 were women. The group remained about stationary in the last ten-year period.

INSPECTORS, BY INDUSTRY

There were 74,334 inspectors listed by the industry in which they were engaged, of whom 4,809 were women. Facts for the three subgroups are as follows:

1. *Mining*.—Mining inspectors numbered 7,313, of whom only 19 were women. The total remained almost stationary during the decade. Comparability was low.

2. *Railroads, including repair shops*.—Railroad inspectors numbered 29,496, of whom only 75 were women. Their number declined almost 10,000 during the depression decade, to their lowest figure since 1910.

3. *Other transportation*.—Other transportation inspectors numbered 5,226, of whom 81 were women. Comparability was low, but they apparently suffered a slight loss in the last ten-year period.

OTHER CRAFTSMEN

Locomotive Engineers

The important and highly placed craft of locomotive engineers numbered 72,396 in 1940, among whom were no women. The craft suffered greatly during the decade of depression, sustaining a loss of about 41,955, or more than a third (36 per cent). The census figure in each report probably includes a small but unknown number of stationary engineers.

Locomotive Firemen

Many firemen eventually become locomotive engineers, for this is the apprentice level of that craft. In 1940, firemen numbered 48,851, among whom were no women. Firemen also suffered greatly during the depression, their number declining 18,245, or more than a fourth (27 per cent). Some boiler (stationary-engine) firemen may have been counted under this caption in the census reports.

Brickmasons, Stonemasons, and Tile Setters

Masonry-construction craftsmen numbered 141,690 in 1940, of whom only 506 were women. The depression decade was hard on them, for their number suffered a decline of 29,213, or 17 per cent.

Stonecutters and stonecarvers.—The relatively small group of artisans working with stone numbered 14,286 in 1940, of

whom 81 were women. They too suffered severely during the depression, their loss being about 6,542. Comparability was low.

*Machinists, Millwrights, Toolmakers, Mechanics*²

The group of crafts related to machines included 1,635,925 workers in 1940, of whom 10,468 were women. A substantial part of this group was at work in the automobile industry or employed as service and repair men in garages. This probably accounts for much of the increase of 190,791 in the ten-year period, for while the automobile industry suffered along with others in the depression it did make a substantial recovery which was recorded in the 1940 figures of the census. Had the census been taken in 1935, for example, the showing would probably have been different. Figures for certain subgroups making up this group of artisans are shown in Table II, Appendix. Only the last two of these have figures for a 1930-40 comparison, as indicated here:

1. *Millwrights*.—Millwrights numbered 43,595, of whom 169 were women. This group increased slightly during the last decade, to reach their peak number in four decades.

2. *Loom fixers*.—Loom fixers numbered 24,694 in 1940, of whom only 96 were women. It increased by about 6,055 from 1930, recording the substantial recovery experienced in the textile industry in the late years of the decade and reaching its peak figure in four decades.

Metal Molders

Such artisans numbered 87,624 in 1940, of whom only 445 were women. They lost approximately 6,800 workers in the ten-year period. Comparability was low.

Painters

Painter craftsmen in construction and maintenance work, numbered 442,659, of whom 3,311 were women. They weathered the decade of depression quite well on the whole, for by 1940 they had recovered and slightly increased their number over the 1930 figure.

² "The post-war demand for mechanics to serve Diesel engines can be adequately supplied from the relatively large number of experienced engine mechanics who will be available. As a result, the value of Diesel training for persons without mechanical experience is definitely limited." U.S. Bureau of Labor, *Monthly Labor Review*, February 1945, p. 111.

Paperhangers

Paperhangers numbered 29,994 in 1940, of whom 1,717 were women. They, too, had increased their number slightly over that of 1930.

Plasterers

These workers numbered 52,878, of whom 226 were women. They had failed in 1940 to recover their depression loss, having fallen off 17,175 in the ten-year period

Plumbers, Gas and Steam Fitters

The plumber group numbered 210,815, of whom 710 were women. The decline was 24,621 in the 1930-40 decade, a loss of some 10 per cent.

Printing Craftsmen except Compositors

1. *Electrotypers and stereotypers*.—Processors in printing numbered 8,251, of whom 78 were women. Their number increased slightly during the decade to reach its peak in four decades.

2. *Pressmen and plate printers*.—Pressmen numbered 35,777, of whom 528 were women. The group gained approximately 3,000 during the last ten-year period, also reaching its peak number in four decades.

Metal Rollers and Roll Hands

These skilled workers numbered 30,447 in 1940, of whom 148 were women. Their number increased slightly for the decade.

Roofers and Slaters

Roofers numbered 32,720, of whom 128 were women. They made a remarkable gain over 1930, adding some 9,084 to their number. This trade has expanded during the last several decades.

Tinsmiths, Coppersmiths, Sheet-Metal Workers

The metalsmiths numbered 91,595, of whom only 412 were women. They too increased substantially in number during the decade, the addition being about 7,334. The group has shown a steady growth during the last three decades.

Shoemakers and Repairers (Not in Factories)

Shoe artisans, some of whom are proprietors, numbered 65,675, of whom 646 were women. Their number declined 9,927 in the ten-year period. This is a declining trade.

Tailors and Tailoresses

The census has had difficulty in distinguishing tailors from proprietors of clothing factories and from operatives in such factories. The 1940 census recorded 118,797 "tailors and tailor-esses," of whom 15,717 were women. The reported numbers showed a substantial decline over the depression decade, the loss being 48,793, or almost 30 per cent. If the census figures are to be depended upon, this is a declining trade.

Decorators and Window Dressers

Decorators totaled 29,818, of whom 6,732 were women. The figures for the earlier census are not closely comparable, although it appears that this group experienced a substantial increase in the last census decade.

Engravers, including Photoengravers and Lithographers

Engravers of various kinds in connection with printing numbered 31,112, of whom 1,162 were women. Earlier comparable figures for subgroups are not available, although the composite group showed a gain of about 3,090 in the decade. See Table II, Appendix, for the 1940 figures for the two subgroups.

Jewelers, Watchmakers, Gold and Silversmiths

Jewelry and watch craftsmen numbered 36,332, of whom 1,495 were women. Their number apparently declined slightly during the last ten-year period.

Millers

Craftsmen in grain, feed, and flour mills numbered 15,608, of whom only 81 were women. The group declined slightly during the last ten-year period.

Piano and Organ Tuners

The small group of tuners numbered 5,219, of which number 45 were women. It declined during the decade by 1,604, and earlier figures indicate that it is not an expanding occupation.

Sawyers

Skilled operators of saws numbered 46,015 in 1940, of whom only 311 were women. The census grouping is not identical for the 1930 and 1940 counts, but the use of the adjustment index shows a substantial increase of sawyers during the decade, adding approximately 9,000 to their total, or about 24 per cent.

Upholsterers

Upholstery workers numbered 42,585, of whom 2,014 were women. Their number remained about stationary during the last ten-year period. Comparability was especially low.

SUMMARY

Aside from numerous other influences, the census occupational groups were variously affected by the hold-over effects of the depression, by such recovery as had been made by March of 1940, and by the growth in population during the decade. It is not surprising to find within the broad category of skilled workers some 29 groups which showed either a loss or a stationary situation, as against 22 which made gains, large or small. In construction the number of groups which gained about equaled those which lost in number. All four railroad groups suffered losses. Metal workers made gains, on the whole, doubtless as a result of recovery in these lines. Foremen and inspectors generally showed increases, with exceptions including those in street transportation.

While women in 1930 constituted small fractions of the total number in most of the crafts in which men had long predominated, their increase in most of these by 1940 indicated a noteworthy trend. Many of the gains were very large. This new phenomenon was prophetic of the vast increase in the number of women in industry induced by the war effort.

CHAPTER VII

OPERATIVES AND KINDRED WORKERS

According to the official census summary, operatives form the largest category in the labor force of the land, attesting the enormous recent expansion in semiskilled machine-production, manufacturing, and similar work in other lines.

The census has long used the term "operative" to include a wide range of occupations of the machine-tending type in factories—helpers, apprentices, and assistants in shops, on construction jobs, and in institutions. They possess one recognizable common element—their work is at the semiskilled level.

Some occupations in this group, such as apprentices, lead directly to master's status, and are in fact a necessary step on the way to recognition of competency in a craft. But a substantial majority of workers classed as operatives are in jobs which lead to no higher levels of employment. For with the rapid expansion of technology in our modern mass-production economy these semiskilled jobs replace the handicrafts and higher skills of an earlier culture. They usually require limited ability of the machine-tending or fetch-and-carry kind. They are repetitive in nature; the required proficiency is attained after a short period of training, and is not greatly increased by experience. Many such jobs are not easily distinguished from common labor, and are in fact only a notch above that level at best.

Semiskilled workers live in the same economy as other workers but are less favored than most. Being so numerous in comparison with available jobs in all but exceptional boom times, and possessing no strong collective-bargaining power through tightly organized unions, they are subject to above-average layoffs and unemployment, their pay is relatively low, and they must accept whatever working conditions are provided. With immigration quite limited since World War I, the group is increasingly becoming an indigenous American product of our schools, communities, and institutions.

How important this body of workers is in the experienced American labor force is indicated by its numbers. In 1940, 9,415,901 persons were listed as operatives and kindred workers, of whom 7,009,752 were males, and 2,406,149 women. Almost one out of every five workers was on this semiskilled

level (18.1 per cent), its importance with each sex being indicated by the proportion operatives are of all male workers, 17.8 per cent, and of all female workers, 19.2 per cent. Certain brief descriptions of the more important groups among them follow, the reader being referred to the tables of the Appendix for details of all subgroups of operatives and kindred workers.

Apprentices

This group of workers is not easily enumerated by the census methods of obtaining information. Some of the respondents are probably apprentices pretty well along toward mastery of their craft. Others who are not apprentices, but helpers or operatives having no prospect of becoming trainees, may list themselves as apprentices. What the net effect on the figures is cannot be determined with precision.

For the group of apprentices as a whole, fairly dependable figures are given. In 1940 they totaled 92,360, of whom 2,593 were women. Female workers constitute a negligible number in the building trades, most of the women apprentices being in unspecified trades other than building and construction. The figures indicate that by 1940 the decline in apprentices observed in the trough of the depression had been halted and that a reverse trend had taken form, so that the group as a whole showed a gain for the decade of 7,616. Apprentices to carpenters, machinists, and the printing trades increased in number during the decade; apprentices to electricians and plumbers decreased. Apprentices in a wide variety of unspecified trades, usually too small in numbers to be listed separately, as a group declined slightly.

The number of apprentices in each of the listed groups is found in the Appendix, Table II.

Transportation Servicemen

Railroad brakemen.—Railroad brakemen numbered 68,392 in 1940, all of whom were men. As with other railroad workers, their number decreased markedly from that of 1930, by about 20,687, or 30 per cent.

Switchmen, crossing watchmen, and bridge tenders.—Watchmen and tenders comprise, for the most part, those who are approaching retirement or who have sustained disabilities in active service. In 1940 it numbered 65,202, including 131

women. Its decade loss was also heavy, amounting to about 30,571, or almost half the 1930 number, affecting both sexes.

Chauffeurs, truck drivers, deliverymen.—The heterogeneous group of drivers has in common the use of some means of conveyance on streets and highways, usually an automobile. In addition, a relatively small number are employed as tractor drivers. The total for the group in 1940 was 1,768,041, of which 10,029 were women. The increase was more than half a million workers from 1930 (594,245), both sexes experiencing a gain. Unfortunately, the census figures do not give details showing the trends for the subgroups. See the Appendix, Table II, for their 1940 numbers.

Conductors of buses and street railways.—Street and inter-urban transportation conductors numbered 17,785 in 1940, of whom only 174 were women. The total is the lowest in four decade reports. The group suffered severe losses during the decade of depression, declining 18,914, or 51 per cent of their number in 1930.

Dressmakers and Seamstresses

Needle workers, not in factory employment, totaled 165,031, of whom all but 2,784 were women. This has always been a difficult group to enumerate well, because their location is not always reported and because so many women work at dress-making intermittently. Hence the trend is not easily shown. That there was a substantial decrease in the number of such workers during the last ten-year period seems clear from the data; but the exact number lost cannot be stated.

Firemen, except Locomotive and Fire Department

Workers who fire boilers in factories, understudy some stationary engineers, operate heating units in buildings, etc., numbered 127,455, of whom only 563 were women. A decline of approximately 6,204 from the 1930 level is indicated.

Laundry Operatives and Laundresses

Excluding private-family laundresses, laundry workers numbered 233,763, of whom 54,096 were men. The group not only weathered the depression but by 1940 had increased by approximately 14,126, both sexes participating in the gain.

Linemen and Servicemen

Public utility workers totaled 110,816 in 1940, 1,015 being women. Figures for 1930 are not closely comparable, but the data indicate an appreciable gain by 1940.

Mine Operatives and Laborers

It was impossible for the compilers of the census to decode the reports of enumerators so as to distinguish between semi-skilled and unskilled workers in mines. Hence, mine operatives have been carried as a single group, numbering 824,093, of whom 2,547 were women. Figures for the earlier census are not strictly comparable, although the figures indicate a considerable decade loss.

Motormen

Motormen on street railways and in mines, factories, logging camps, etc., numbered 56,368 in 1940, of whom only 267 were women. The number of motormen on street railways, subways, and elevated railways was 38,380, including 228 women, the trend for the decade showing a loss of 19,589, or 33 per cent of their number. This total is the smallest in the last four census years. The trends for other types of motormen cannot be given for lack of comparable data, but their number in 1940 was 17,988.

Painters, except Construction and Maintenance

The painters here included are largely semiskilled factory operatives, usually employed in tending automatic or semi-automatic painting machines. They numbered 100,726, of whom 6,878 were women. With the data only fairly comparable, the group showed a considerable gain, of possibly 10,000 for the decade.

Sailors and Deckhands

The American merchant marine deck force numbered 46,078 in 1940. The count of such persons is not easily made. Hence figures for the previous census are not closely comparable. But apparently a substantial loss occurred during the decade. Only 217 women are listed among such workers.

Buffers and Polishers of Metal

A semiskilled group of industrial finishers of metal numbered 45,035 in 1940, 2,126 being women. It had recovered from the trough of the depression to show a substantial gain of 9,833 workers, and reached its peak number in the last four decades.

Metal Grinders

Metal-grinding workers numbered 45,902, of whom 636 were women. Earlier census data are not strictly comparable, but it appears that the number of grinders has increased substantially, probably by as much as 20,000 during the decade. The group has enlarged steadily through three decades.

Dyers

The occupation of dyeing is classed by the census as semiskilled, although it is regarded by some experts as belonging at the skilled level. Dyers totaled 24,898, of whom only 764 were women. The adjusted figure for 1930 shows that the group increased by 5,409 in the last ten-year period; but the data of the two censuses are not strictly comparable.

Fruit and Vegetable Graders and Packers

Semiskilled workers with fruits and vegetables are employed in packing sheds and fields and do not include workers in canneries. A difficult group to segregate, it numbered 25,965 in 1940, of whom 14,972 were women. The reported figures show the group to be on the increase, although the data for the two decades are not closely comparable.

Metal Workers

Furnacemen, smeltermen, and pourers.—These occupations are on the border-line between skilled and semiskilled work. The number of workers was 33,932, of whom only 287 were women. Although the census data are not precisely comparable, apparently the gain in numbers was substantial, probably in excess of 13,000.

Metal heaters.—The small group of metal heaters numbered 11,081, of which 156 were women. Census data, while not closely comparable, show a probable loss of 3,114 in the decade.

Oilers.—Workers with machinery known as oilers numbered 39,498, of whom 235 were women. Figures for 1930 are

not closely comparable, but the group probably made a considerable increase in number during the ten-year period.

Operatives in Manufacturing

The census distinguishes semiskilled workers in different industries, making possible certain somewhat meaningful and useful groupings of operatives. Brief reports of these industrial groups follow.

1. *Food and kindred products*.—The substantial body of workers with food and food products numbered 356,588, of whom 130,390 were women. For some subgroups within this total, figures for 1930 are not strictly comparable. But that the group as a whole made substantial gains in the last decade is certain. The numerical increase was about 119,832, a gain of 33 per cent. All subgroups increased in number, the most notable gains being: in beverage industries, 33,172, or about three times their 1930 figure; among canning and preserving operatives, 22,215, almost double their number in 1930; in meat products, 36,160, over a 60 per cent gain. Figures for 1940 for each group within the food and kindred workers classification are available in the Appendix.

2. *Tobacco manufacture*.—Operatives engaged in making tobaccos, cigarettes, cigars, snuffs, etc., numbered 82,563, of whom 25,345 were males. With closely comparable figures for the last decade, the group as a whole lost considerably, the decrease in numbers being 21,099, or 21 per cent. The 1940 total is the smallest in the records of the last four decades.

3. *Cotton manufacture*.—The large group of operatives in cotton-goods factories numbered 383,250, of whom 179,015 were women. It made a substantial gain over the 1930 figure, the number being 80,940, or an increase of 26 per cent. Both sexes participated in this increase. The total is the largest in the last four decades.

4. *Silk and rayon industries*.—It was frequently difficult for the enumerators to determine whether respondents were engaged in the manufacture of silk and rayon or of rayon and allied products. In some instances the industry belongs in the apparel field, in others in that of industrial processes. As a combined group, these operatives totaled 119,126, of whom 57,525 were women. The group decreased 23,968, or some 16 per cent, in the ten-year period. This net loss was due to the silk-and-rayon-manufacturing operatives, the number which

declined 34,745, for those in rayon and allied products experienced a substantial gain. Operatives in silk and rayon manufactures numbered 88,463 in 1940, of whom 47,118 were women. Operatives in rayon and allied products numbered 30,663, of whom 10,407 were women.¹

5. *Woolen and worsted manufacture.*—Operatives in woolen industries numbered 125,124, of whom 59,818 were women. Although decade data are not precisely comparable, the decennial trend indicates a substantial increase in their number, the gain being about 28,428, both sexes sharing in this increase. The total is the largest in the last four decade returns.

6. *Knit goods.*—Operatives numbered 186,093, of whom 63,067 were males. The group increased substantially during the decade, the numerical gain being about 53,492, or 40 per cent. The total is likewise the peak number in four decades.

7. *Lumber, furniture, and lumber products.*—Operatives in these industries numbered approximately 195,978, of whom 26,554 were women. They made a gain of some 16,247 from 1930, just less than 10 per cent. Probably each of the subgroups participated in this increase as well as both sexes. Their 1940 numbers and some adjusted 1930 figures are given in the Appendix.

8. *Paper, paper products, and printing.*—Paper and printing operatives numbered 231,238, of whom 83,421 were women. The numerical increase for the decade was 59,413, or about 35 per cent. Indefinite returns in the 1930 census for workers in factories making paper-boxes and other paper products may have been sufficient to render dubious the size of the increase. An increase seems highly probable. Operatives in the various subgroups in these industries are listed in the Appendix.

9. *Chemical, petroleum, and coal products.*—The total of operatives in chemical, petroleum, and coal-products industries enumerated in 1940 has no comparable group in the earlier census. The various distinguishable subgroups within the chemical and petroleum industries numbered as follows: "Paints, Varnishes, and Colors," 12,388, including 1,738 women,

¹ "Wartime losses of men in the hosiery industry led to the employment of women in substantial numbers, even in occupations hitherto closed to women, gains that will be carried over into the post-war period." U.S. Department of Labor, *Monthly Labor Review*, May 1945.

with a probable 50 per cent decade gain; "Miscellaneous Chemical Industries," 82,322, including 22,214 women, with a probable 60 per cent decade gain; "Petroleum Refining," 29,237, of whom only 486 were women, with a possible 33 per cent decade gain; and "Miscellaneous Petroleum and Coal Products," 4,429, of whom 116 were women.

10. *Rubber products*.—Operatives in the rubber industry numbered 86,109, of whom 23,691 were women. The group experienced a possible increase of 11,763, shared by both sexes. The total is presumably the highest in four decades.

11. *Footwear industry*.—Operatives in the footwear industry, which does not include those working in rubber, totaled 221,815, of whom 97,891 were women. The increase from 1930 to 1940 was 11,949. A gain was made by women; the number of men diminished. The total is the highest in four decades.

12. *Leather and leather products*.—Operatives in a classification including all kinds of leather products except footwear numbered 80,572, of whom 27,765 were women. The decennial increase was about 12,317, shared by both sexes. Operatives engaged in tanning, curing, and finishing leather numbered 32,276, of whom 4,036 were women. Those working on "Leather Products" numbered 48,296, of whom 23,729 were women. Both the subgroups shared in the decade gain of the total group. However, neither group has expanded over the last three decades.

13. *Stone, clay, and glass products*.—Figures for 1930 on the total number of stone, clay, and glass operatives are not available. In 1940 they totaled 125,618, of whom 26,573 were women. Certain data on the subgroups follow. Operatives in "Cement, Plaster, Gypsum, and Plaster Products" totaled 13,867 workers, of whom only 245 were women; there has been an over-all expansion of the group since 1910. The number of operatives in "Cut Stone and Stone Products" was small, about 5,594, of whom 87 were women, having declined somewhat during the decade. Operatives in "Glass and Glass Products" totaled 57,133, of whom 12,899 were women; their number increased considerably over that of 1930, but there seems to have been a slight over-all loss since 1910. The number of operatives in "Pottery and Related Products" was 25,417, of whom 9,318 were women. It increased somewhat throughout the last thirty-year period. Operatives in "Structural Clay Products" numbered approximately 12,629, of whom 1,509 were women.

Their number has remained about stationary since 1910. Operatives in "Miscellaneous Nonmetallic Mineral Products" totaled 10,978, of whom 2,515 were women. No trend data are available for this group.

14. *Nonferrous metals and their products.*—Operatives in nonferrous-metal industries numbered 80,550, of whom 21,981 were women. Strictly comparable data for 1930 are not available. Operatives in "Nonferrous Metal Products" numbered 47,784, of whom 9,058 were women. Operatives in "Clock, Watch, Jewelry and Silverware Manufacturing" numbered 32,766, of whom 12,923 were women. This group includes operatives in metal engraving (except in printing), plating, and polishing. Its number apparently declined slightly during the decade.

15. *Electrical machinery.*—Operatives in plants making electrical machinery and equipment numbered 152,492, of whom 69,680 were women. While census data are not closely comparable for 1930, the group apparently gained substantially in the last decade. It has expanded rapidly over the last three decades.

16. *Automobile and auto equipment.*—Operatives in the automobile industries totaled 219,029 in 1940, of whom 27,766 were women. Although enumerations for the last two censuses are not closely comparable, it is possible to report a substantial decade gain, shared in by both sexes.

17. *Other metal and metal-working industries.*—This collection of operatives totaled 534,362 in 1940, of whom 69,123 were women. Although the figures for the subgroups in 1930 are either missing or not strictly comparable, those for the total are close enough to permit a rough approximation of the trend, indicating that such operatives increased considerably in number, both sexes sharing in that increase. The 1940 figures for the subgroups may be readily found in the appended table.

Non-Manufacturing Industries and Services

Semiskilled workers are found spread through a wide range of non-manufacturing industries and services. In this most recent census the attempt has been made to collect them for separate treatment, as was not done in earlier reports. Their number totaled 525,844, of whom 101,569 were women. For only a few of the subgroups making up this total is it possible

to give an estimate of the trend which has developed. The reader is referred to the Appendix for the 1940 numbers in each group. For those which permit of some comment regarding trends, the following are offered: "Railroads," including operatives working in repair shops, numbered 67,589 in 1940, losing about 26,770 of their number in the decade following the 1930 census. "Warehouse and Storage" operatives numbered 6,042 and experienced a slight increase for the decade. "Laundering, Cleaning, and Dyeing" operatives numbered 74,847, a substantial increase over the earlier census. And "Amusement, Recreation, and Related Services" operatives numbered 7,221, likewise showing a substantial increase over their former number.

SUMMARY

Semiskilled operatives are so largely identified with manufacturing that their trends are a good indication of what had happened by March 1940 in this important section of the economy. Considerable recovery had been achieved, for of 58 occupational groups in the foregoing list for which trends are indicated, 39 showed decade gains in number, only 18 showed losses, and one showed no change. Important groups of industries showing gains include textiles, foods, cement, glass and pottery, lumber and furniture, paper and printing, rubber, leather, petroleum and oil, automobiles, and metals.

Losses are intelligible for the tobacco industry, which has been heavily affected by methods of machine production, in the luxury category of clocks, watches, and jewelry, and in silk and rayon goods as contrasted with rayon and allied products, where a gain was made.

Semiskilled workers on railroads, as with other occupational groups in this industry suffered a loss, as did similar workers on street railways and in marine transportation; but an increase occurred among chauffeurs and drivers.

Expanding out-of-home services, such as laundering, cleaning and dyeing, amusements, and recreation, continued their gains, while dressmaking and sewing showed a loss. In mining the number of operatives and laborers diminished.

CHAPTER VIII

SERVICE WORKERS

The 1940 census arranged workers rendering various types of personal or private service under three main headings—Domestic, Protective, and All Others. Among the last-named are such numerically important occupations as barbers, janitors and charwomen, cooks, attendants in institutions, practical nurses, and nonfamily servants. Experienced service workers 14 years of age and over numbered 6,258,000, of whom 2,634,000 were males and 3,624,000 were females. Twelve of every hundred workers were in these occupations, seven of every hundred males, twenty-nine of every hundred females. The 12 per cent gain shown for the Domestic Service group may be compared with a 7.2 per cent gain in the population served, and a 12.4 per cent gain in the labor force as a whole.

The number of service workers has increased in every census count since 1870. The 1940 census so rearranged occupational groups that the long-range trends are not easily established. While relatively fewer families now have personal domestic servants than in earlier times, the increased number of homes make use of more personal services than before. They use more barbers and beauticians, eat more meals out where they are served by cooks and waiters, patronize more bartenders, and attend places of amusement more frequently. Catering to the personal needs and fancies of consumers bids fair to occupy an increasing proportion of the labor force. How the various occupational groups weathered the depression decade, as reported in the 1940 census figures, is indicated below.

Domestic Service

The very large body of workers in domestic service totaled 2,349,394, of whom 161,411 were males, and 2,187,983 were females. It is divided into three groups—housekeepers, servants, and laundresses—all in private families. The distinction between the first two groups was not easy to make, so that the separate figures for these are unreliable.

Housekeepers numbered 396,160, of whom only 3,129 were males; servants numbered 1,754,842, of whom 154,573 were

males. The two groups combined increased 452,144 from 1930 to 1940. This gain of 26 per cent may reflect generally depressed conditions prevailing in the last decade. For it is observed that whenever such conditions characterize the labor market more persons offer themselves as domestics and more find such employment. When boom conditions prevail in industry, it becomes almost impossible to find a servant; for the attractions of shorter and more regular hours, equal or better pay, and higher status exert an irresistible pull.

Laundresses in private families numbered 198,392, of whom all but 3,609 were women. It was difficult for the census tabulators to code laundresses in private families separately from other laundresses. The very substantial decrease in the number of family laundresses in the last decade may be accounted for in part by this fact. But it also reflects an increasing general use of commercial laundries.

Protective Service

The several types of public-service workers experienced a considerable increase in number over the last census decade. Since then, owing to war conditions, their numbers have been greatly altered, so that what is recorded below, especially with respect to the armed services, reflects conditions prevailing in the immediate prewar period.

Firemen in fire departments.—The number of firemen was 78,822 in 1940. There were no women employed in such service. A gain was made of 7,274 for the decade. This 8 per cent gain is slightly larger than that of the population.

Guards, watchmen, and doorkeepers.—The large group of public service workers acting as guards numbered 219,437, of whom 2,364 were women. This group experienced a substantial increase over the decade, perhaps approximating 38 per cent. The decade data are not closely comparable.

Policemen, sheriffs, marshals.—Regular protection officers include several grades of workers in either public or private employ. As a whole, they numbered 176,988, of whom only 2,226 were women. Their number increased 7,748 in the last ten-year period, both sexes sharing in the gain. "Government Policemen and Detectives" numbered 130,958, only 981 being women. "Private Policemen and Detectives" were 20,879, of whom 732 were women. For these two groups combined there was a decade gain of about 5 per cent. "Marshals and Con-

stables" totaled 8,987, of whom 130 were women; their number decreased 363 in the last decade. "Sheriffs and Bailiffs" numbered 16,164, of whom 383 were women; their number increased slightly in the census decade. "Enlisted Personnel of the Army, Navy, Marines, and Coast Guard" numbered 222,485, all of whom were men. The previous census count was not comparable.

Other Service Workers

The miscellaneous service workers cannot be summarized or compared in number with the 1930 census, for a considerable regrouping was made in the last census. For those in which some approximation of the trend is possible, the following descriptions are offered.

Barbers, beauticians, manicurists.—These service workers numbered 440,111, of whom almost half, 218,132, were women. Their number increased 65,896, or almost a fifth (18 per cent) in the last decade. But this trend reflects a substantial increase in the number of women engaged in such work, for men actually decreased in number. Women almost doubled their number, the gain being 104,970, while men lost by 39,074. The 1940 total is the largest in four decades.

Boarding and lodging-house keepers.—The census sought to include only those who keep five or more boarders. Earlier censuses required a return if the individual derived his or her principal means of support from this type of service. It is probable, according to the census, that the decrease with such workers shown in 1940 as compared with 1930 was due largely to the differences in methods of enumeration. These workers numbered approximately 111,609, of whom only 10,774 were men.

Charwomen and cleaners.—Persons acting as charwomen and cleaners numbered 74,670, of whom 34,517 were men. The group gained considerably, about 10,880, in the last decade. The gain was made by men, women having lost in number. The total is the largest in four decades.

Janitors and sextons.—Building caretakers totaled 377,684 in 1940, of whom 39,041 were women. The group gained markedly during the census period, the increase being 71,155 or almost a fourth (23 per cent). Both sexes shared in this gain, although the rate of growth was greater among men than among women. The total is the largest in four decades.

Cooks.—Commercial and institutional cooks, not in families, numbered 335,806, of whom 132,639 were women. The group increased substantially, the numerical gain for the decade being about 46,926, or about 16 per cent. Both sexes shared this gain.

Elevator operators.—Operators of elevators numbered 85,266, of whom 13,986 were women. The decennial increase of the group was 17,656, or about 26 per cent, shared in by both sexes. The total is the largest in four decades.

Housekeepers, stewards, and hostesses.—These service workers are not in private families. Their number in 1940 was 88,375, of whom 19,924 were men. Their very substantial increase during the last ten-year period amounted to approximately 26,218, or about 40 per cent, mostly accountable to the gain in the number of women.

Practical nurses and midwives.—A grouping of practical nurses and midwives was difficult to make; for, as in the case of professionally trained nurses, previously considered, the distinctions among nurses are not easily defined. In 1940, the number of such workers was recorded at 109,287, of whom 4,949 were men. Census figures for the 1930 count are not closely comparable, although it is probable that practical nurses and midwives sustained a considerable loss during the decade.

Servants, except in private families.—Servants outside of families employed in institutions, clubs, living groups, etc., numbered 353,213, of whom 161,869 were men. The data for the previous census are not closely comparable, although it seems certain that the group increased substantially.

Waiters and waitresses.—The waiter group does not include those serving in private families. Their number in 1940 totaled 604,908, of whom 198,812 were men. The 1930 figure was increased substantially, the decennial gain being about 189,740, shared by both sexes, with women making the greater increase. Comparability was not high.

Attendants and ushers.—Workers in amusement centers and places of assembly totaled 77,528, of whom 10,969 were women. Attendants numbered 57,096 and ushers 20,432. Although the earlier census figures are not precisely comparable, the combined group showed a heavy increase during the last decade.

Bootblacks.—So-called bootblacks totaled 15,377, of whom

only 372 were women. Their number declined 3,102 in the last period, though the totals have not been far apart in the last four decades.

SUMMARY

In keeping with long-run trends, personal and domestic services for the most part showed gains in number over the 1930-40 decade, only 3 occupational groups of 14 possible comparisons indicating losses. The gains are quite uniformly greater than that of the population served. The three losses are those of boarding- and lodging-house keepers, practical nurses and midwives, and bootblacks. The figures for the first two of these groups are somewhat suspect because of difficulties of enumeration. Probably the principal cause of increase in most of these domestic services is the depression itself, for there is a demand for such work not fully met in normal times when better-paid and more acceptable forms of employment are available. Some domestic services are increasing in the number of workers because of changes in our mode of living and our personal habits.

Of 5 protective occupational groups for which decade comparisons are possible, moderate gains were made by 3, also a substantial gain in the case of guards and watchmen, and a minor loss with marshals and constables. Excepting the last-mentioned, the protective service groups made steady gains throughout the period 1910-1940.

CHAPTER IX

LABORERS

One of the largest occupational categories in the experienced American labor force is unskilled labor. Despite the technological advances which characterize this age as one of steel and machines, bodily labor of back, arms, and legs, performed in a wide variety of callings, is still the means by which this great body of people earns its daily bread. It is true that the factory system and modern methods of construction, farming, and transportation have altered considerably the work performed by manual laborers, some of which has been upgraded into the semiskilled machine-tending or operative class. But common labor is cheap and is needed because so far no ingenuity of invention has been able to do away entirely with even that slight amount of co-ordination of mind and body essential in moving, lifting, pulling, and pushing objects, or performing other tasks requiring very little beyond such simple muscular action.

The United States has been built largely on the labor furnished by immigrants. Most of these came as unskilled laborers, a vast horde of people numbering at their peak around 1910 more than a million a year. After that, immigration fell off, and, with various restrictive laws enacted by Congress following World War I, net immigration declined to a quarter of a million by 1930, and to much less by 1940, so that for some time past this country has depended on its own people, supplemented in some measure by Mexican labor in the Southwest, to furnish the supply of unskilled labor needed by its economy.

Manual laborers required by industry have been attracted to the cities from farms where their opportunities to earn cash incomes have been limited. Negroes in large numbers have migrated from poor circumstances in Southern states to the great manufacturing centers of the North. But a substantial number of the workers used in unskilled and semiskilled labor have come out of our cities, from among immigrants whose level of living has remained at that of manual labor, or among the children of the older migrants who have not succeeded in

climbing above the level of their fathers in their own occupational careers.

In 1940, experienced laborers, 14 years of age and over, including those working on farms, numbered 8,605,000, of whom 8,139,000 were males and 466,000 were females. They were a sixth of all workers (16.5 per cent), a fifth of all males in the labor force (20.6 per cent), but only a small fraction, 3.7 per cent, of all women who worked. Manual labor in this country, probably more than in any of the older countries, is man's work. Paid workers on farms employed as laborers numbered 2,312,035. Certain facts will be reported in this chapter regarding the more significant groups of these manual laborers.

The unskilled nature of their work makes it possible for many manual laborers in industry to move from job to job, industry to industry, as opportunity for work or changing conditions permit. But this very flexibility is dangerous for them. It means that these many millions of workers are in almost, if not direct, competition with each other for all unskilled jobs available. They are not easily organized, and to date such unions of unskilled workers as have been starting are for the most part feeble and ineffective. With the advent of the C.I.O. and its vertical unionism, unskilled laborers have had their first real opportunity to obtain the advantages of collective bargaining by being attached to the crafts and other occupational groups organized along industrial lines.

Unskilled manual laborers are not the bottom rung of an occupational ladder of evenly spaced rungs.¹ Instead, they are set off from most other levels of labor, characterized by much lower pay, poorer working conditions, more frequent and prolonged unemployment, debilitating tasks, industrial hazards to health and to body, and early superannuation and discard. They begin work at an earlier age, attain their maximum pay almost from the start, have fewer chances for advancement, and, if they remain in unskilled labor for any length of time, are indelibly stamped for life with its mark. Inevitably, as this condition becomes fastened on modern industrial America, there is growing up a class of workers whose education, culture, and outlook are considerably different and less wholesome than those of others in the labor force.

¹ Support for these statements may be found in the writers' *Occupational Mobility in an American Community* (Stanford University Press, 1937), and *Ballots and the Democratic Class Struggle* (Stanford University Press, 1943).

There is nothing preordained about the status of manual laborers. The cause and effect relationships which compel sons to follow in their fathers' footsteps in these unfavored occupations can be broken. In fact, some individuals and families do break the chain and lift the status of the succeeding generation much above that of unskilled manual labor. Social and economic barriers to their further advancement can be removed whenever society at large so determines. Education has already done much in this direction; better vocational guidance and training will do much more.

The census of 1940 made the attempt to separate manual laborers from other occupational groups. Inevitably, because of the nature of the census, with its numerous house-to-house canvassers taking down voluntary reports from those interviewed, there were misstatements concerning occupational status and industrial employment. Yet, some 85 different groups of manual laborers other than those in farming and mining were differentiated. For most of them it is possible to make some observation concerning the numbers employed and the apparent trends. For details of 1940 figures of the other subgroups the reader is referred to the Appendix, Table II.

Construction

Construction workers constitute the largest single division of industrial labor, numbering 1,243,534 in 1940, of whom only 6,846 were women. It appears that during the decade a substantial increase in number of construction laborers had taken place, probably adding more than half a million (512,283). This total includes men employed in public emergency work. How much of this gain is due to differences in coding is not known.

Fishermen and Oystermen

The number of fishermen and oystermen in 1940 was 62,574, including 438 women. There was a considerable net decade loss, of approximately 9,000. Women apparently more than doubled their small number.

Longshoremen and Stevedores

Of longshoremen and stevedores the number in 1940 was 75,103, and among them were only 422 women. The increase

for the decade was 1,180. But the work is irregular and the count for one week in March 1940 is not necessarily typical.

Lumbermen, Raftsmen, and Woodchoppers

The number of lumbermen, etc., reported for 1940 was 164,264, including 567 women. An increase in number of about 13,131 is indicated for the decade. These figures also may not be typical for the year.

Teamsters

The teamsters numbered 31,643, and included 160 women. The 1930 figure is not closely comparable, but a heavy decline in number is indicated.

Manufacturing

The total number of laborers in the 16 large groups of manufacturing industries listed was 1,543,380. Details for 1940 are found in the Appendix. Here only the more important groups will be referred to.

1. *Food and kindred products.*—Laborers on food and food products totaled 178,692, of whom 16,627 were women. It appears that the group gained somewhat in number during the decade, possibly as much as 9,680. But this was the result of increases in the number of males employed, for the number of female workers diminished by about 3,053. The most important subgroups in this segment of manufacturing are: "Meat Products," 46,083; "Canning and Preserving of Vegetables, Fruits, and Sea Foods," 31,938 (it must be observed that the census count in March did not cover the peak seasonal employment of such workers); and "Beverage Industries," 21,506. Trends in all three of these industrial groups show an increase in number of laborers over that of 1930. The largest body of laborers in food products were workers in "Grain Mills and Kindred Products," numbering 48,988. It apparently experienced some decline in number from the earlier census report, although the figures for the two are not closely comparable.

2. *Textiles, textile and rayon products, and apparel.*—Textile and rayon laborers numbered 105,983, of whom 15,758 were women. From figures not closely comparable it appears that these laborers decreased in number substantially during the last ten-year period, possibly losing 40,000 workers. The loss was shared by both sexes. "Cotton Manufacture" is the domi-

nant subgroup, laborers counting 39,727 in 1940. Their number diminished somewhat during the decade. "Silk and Rayon" had 12,745 laborers in 1940—a sharp decline from 1930, if the two counts are comparable. "Woolen and Worsted" had 13,727 laborers and probably declined somewhat in the last census period. "Apparel and Hats" had 10,188, and also had a probable loss.

3. *Lumber, furniture, and lumber products.*—Laborers in the lumber and furniture field totaled 291,959, of whom 5,037 were women. Laborers in saw and planing mills were the dominant subgroup, numbering 224,293. As a whole, the number of laborers in these several industries handling and processing wood declined during the decade, the loss perhaps being as high as 22,000, but comparability is not high.

4. *Paper, paper products, printing.*—Laborers in paper and printing industries numbered 66,843, of whom 5,406 were women. The dominant group is the paper, pulp, and paper-board industry, employing 43,893 laborers. As a whole the group diminished somewhat during the last ten-year period, the loss being sustained by the male workers only.

5. *Paints, varnishes, and colors.*—Laborers in the paint field totaled 5,666, of whom only 168 were women. Their number fell off about 500 from that of 1930.

6. *Miscellaneous chemical industries.*—Laborers in chemical plants numbered 75,280, of whom 2,457 were women. Their number increased slightly over that of 1930.

7. *Petroleum refining.*—Laborers in petroleum refining numbered 27,562, of whom only 159 were women. They suffered a substantial loss from 1930, the number being about 13,657.

8. *Leather and leather products.*—Laborers in leather numbered 28,222, of whom 4,282 were women. Most of the women workers are found in the footwear industry. As a group, laborers in these leather industries lost substantially during the last decade, the number being about 10,688. All of the subgroups—leather tanning and finishing, footwear, and leather products—lost numbers. Both sexes shared in these losses, except for the relatively small number of women in leather-products industries, who gained slightly.

9. *Stone, clay, glass products.*—Laborers in these industries totaled 106,397, of whom only 3,126 were women. Comparable figures for the earlier census are not available for the group

as a whole. The largest user of labor in the group is "Structural Clay Products," with 41,278 laborers. Their number declined substantially from 1930. The second largest group is "Cement, Concrete, Gypsum and Plaster Products" with 26,181 laborers. It also declined in number considerably during the decade. The third numerically important group is "Glass and Glass Products," having 18,965 laborers. These industries are the largest users of women workers, the number being about 1,314. The total number of laborers in glass industries also declined markedly during the last census period.

10. *Nonferrous metals and their products.*—Laborers in nonferrous-metal industries totaled 45,118, of whom 1,886 were women. While data for 1930 are not closely comparable, it appears that the number of such laborers probably declined somewhat during the census decade. The largest subgroup of laborers is in nonferrous-metal primary products, 25,992, for which there is no comparable 1930 figure.

11. *Electrical machinery and equipment.*—Laborers in electrical-equipment industries totaled 29,787, of whom 4,505 were women. The group had a loss of about 5,248 from the 1930 census report. This was confined to male laborers, for women workers increased somewhat during the decade.

12. *Automobiles and auto equipment.*—The number of laborers in these important industries in 1940 was 69,541, of whom 2,679 were women. They sustained a severe loss during the depression decade which had not been recovered by 1940. At that time there were approximately 49,000 fewer laborers in these industries than ten years earlier. Both sexes shared in this loss.

13. *Ship and boat building and repair.*—Laborers in boat-building industries, in the peacetime period just prior to the present war effort, numbered only 21,175, of whom 143 were women. Even so, this represented an increase of about 4,348 from 1930.

14. *Other metal and metal-working industries.*—Laborers in other metal industries totaled 387,318 in 1940, of whom only 7,323 were women. While comparable data for subgroups are not available for the earlier census, it appears that the total number of laborers in these metal industries declined greatly during the depression decade, represented by a decrease recorded in 1940 of 101,933 workers. The important subgroups in metal industries are: "Blast Furnaces, Steel Works and

Rolling Mills," 188,280; "Miscellaneous Iron and Steel Industries," 124,589; and "Miscellaneous Machinery," 38,890.

15. *Other manufacturing industries*.—Laborers in various other industries totaled 96,386, of whom 14,130 were women. "Tobacco Industries" had 15,332 laborers, 4,027 being women. The group lost considerably during the last decade. "Rubber Products" had 20,139, of whom 2,500 were women; their number, too, declined substantially during the depression decade.

Railroads

Unskilled laborers in the railroad part of our transportation system totaled 255,537 in 1940, of whom 1,717 were women (laborers in railway repair shops are included). From comparable data for 1930 it appears that the number of laborers on railroads decreased by 211,216, almost half their number (45 per cent).

Transportation except Railroad

Laborers in other transportation numbered 102,797, of whom only 914 were women. Their number declined markedly after 1930, the loss being about 38,000, or 26 per cent. On street railways and bus lines 10,505 laborers were engaged; trucking firms employed 40,204. Data for earlier census reports are not comparable.

Warehousing and Storage

In this field laborers numbered 25,656, of whom only 344 were females. Although the figures for 1930 are not closely comparable, this group of unskilled workers apparently increased considerably in the last decade.

Communication and Utilities

Laborers in electric, gas, water, telephone, and telegraph services totaled 96,163, of whom only 489 were women. Figures for these utilities for the earlier census report are not comparable with those of 1940. In communication, alone, there was a severe decade loss.

Wholesale and Retail Trade

Laborers used in many different types of activity numbered 242,049, of whom 8,513 were women. While the figures are not closely comparable, it appears that the number declined substantially from 1930 to 1940.

Laundering, Dyeing, and Cleaning

The number was 13,007, women counting 4,967. The group lost heavily during the depression decade, the decline in number being about 10,000.

Professional and Related Services

As with so many other types of work, these professional and related services required some assistance from common laborers. The number in 1940 totaled 19,082, of whom 1,030 were women. Their number decreased considerably from that of 1930.

SUMMARY

The employment of laborers in many industries and services is more or less irregular, so that the count for one week in March 1940 is not necessarily typical for the year. It is therefore difficult to know what significance the decade trends indicated in the foregoing pages may have for the economy as a whole.

Of 33 occupational groups for which the 1930-40 trend is shown, there were 24 which had sustained losses during the decade, only 9 which had made gains, including some that were quite moderate. The effect of the depression unemployment is thus fairly evident even in March 1940 with this numerically important section of the labor force.

Among the few industries which had recovered sufficiently to show positive gains are lumbering and logging, certain food and beverage industries, ship and boat building and repair, warehouse and storage, and professional and related services.

These statistical displays tell all too poorly the story of laborers during a decade characterized by widespread depression, a period when they experienced much hardship and unemployment.

CHAPTER X

GENERAL SUMMARY

Over the 1930-1940 census decade there was a 7.2 per cent increase in the population of the United States and a 12.4 gain in the size of the labor force. A prosperous economy in this setting would be expected to show gains in all particular occupational groups not known to be declining over the years (e.g., farmers), and a minimum of unemployment.

Nevertheless there were losses in number among particular groups within each of the major divisions of the labor force. Among the seven divisions losses exceeded gains in two ("Craftsmen, Foremen, and Kindred Workers"; and "Laborers"); in two of the divisions ("Proprietors, Managers, and Officials"; and "Clerical and Kindred Workers") gains and losses among constituent groups were practically balanced; in only three of the seven divisions ("The Professions and Semi-professions," "Operatives and Kindred Workers," and "Service Workers") did gains exceed losses.

In short, only the last three major divisions of the labor force failed to show serious losses due to the depression. "Operatives and Kindred Workers" was one of these, probably because of the recovery in manufacturing by March 1940. Domestic service was cheap under depressed conditions and could be expanded because of the continuing demand for it by an enlarging population. Professional service increased the number of its workers, partly because of the enlargement of population, partly because of the disposition of its expert workers to maintain their preferred status even with lowered income.

The general reduction in numbers in particular occupational groups was associated with widespread unemployment.

The comparison of numbers in the two decade reports has limited mathematical precision because of the rough classification of the particular occupational groups considered. However, its suggestiveness is unmistakable. The decade 1930-1940 was characterized by a drastic dislocation of the American labor force.

CHAPTER XI

OBSERVATIONS ON THE POSTWAR PROSPECTS OF LABOR

In a short period of years there has been unfolded before the nation a dramatic and impressive contrast between the disastrous effects upon the labor force of a great and prolonged depression and a truly remarkable manifestation of prosperity and full employment resulting from the war-preparedness program. The nation faces, perhaps soon and possibly in abrupt fashion, a period of reconversion and the development of a peace-time economy loaded with similar drastic contrasts. Certain questions and observations which emerge from the data presented in this volume and other data gleaned from studies of this broad subject are reviewed here for the benefit of those who have any part in the training, guiding, and adjusting of workers in the period just ahead.

The Great Depression, beginning with the financial collapse of 1929, reached such extremes of unemployment, poverty, and distress by 1932 that people voted a change in public policy. This change eventuated in a program to counteract depression and to provide employment for the masses of the people. It was a radical and new departure. For the first time in our history, government stepped into the field formerly occupied primarily by private industry to bolster income and provide purchasing power. Public spending became a major feature of the economic life of the 1930's. When, as a certain measure of recovery was manifest in 1936-37, and this spending was curtailed because of a spreading belief that the crisis was past and private business could again carry the whole load, it was soon apparent that the economy was on the verge of another nose dive. Again the government was forced to devise various means of stopping the impending disaster by preventing further declines in purchasing power and in fact by stimulating the movement toward recovery through the compensatory spending policy used with considerable success in the years following 1932.

It has thus become increasingly clear that some new arrangement was required to employ the potential working pop-

ulation and to keep unemployment within tolerable limits. That arrangement was found in a public policy of compensating for large declines and losses of income occurring within the private sector of the economy; government was being committed to the theory that it was responsible for the welfare of the entire population.

This policy became so firmly established in the life of the nation that by 1944, in the midst of a furious political campaign, the two leading parties both committed themselves to it, each declaring that its first purpose was to prevent any return to mass unemployment, each assuring the people that the federal government would see to it, both by assistance to industry and through public works when necessary, that there would never again be "apple selling by veterans on our street corners."

The effect of this policy on the labor force during the depression decade was many-sided. At a peak point in June 1938 the unemployed in the United States totaled 12,630,000, only 2,767,000 of whom were at work on various types of relief projects, the remaining 78 per cent being on dole. At any given time during that depression never more than a fourth of all unemployed workers were being kept at work, their skills and experience being maintained. The picture was better than this figure would indicate at first glance, however, for the changing character of the relief load meant that a considerably larger percentage were being given intermittent work experience. Yet valiant as the effort was to maintain the labor force, deterioration of labor set in, degrading of status took place, and loss of members in many occupational categories occurred, as shown in this booklet.

By 1940 the noticeable recovery in the nation's business provided an opportunity for certain groups to curtail the funds for work relief, the training of new, and the retraining of old workers, and, finally, by 1942 for elimination of all such efforts. The considerable amount of unemployment still in existence was spread over the land too thinly to be hazardous to community life. It could therefore be ignored by those who were so disposed, for it is a noteworthy fact in modern economic life that many sectors of business may continue to be prosperous while the country as a whole still suffers unemployment of considerable magnitude. In eliminating the various forms of government relief work some held that the last

had been seen of a great threat to our free-enterprise system, while others, apparently as thoughtful, believed that the wartime prosperity would be temporary and that a return to public works and relief projects, as one element in maintaining employment, was inevitable as reconversion should take place.

The economic character of World War II, in which the United States played such a large and significant part in developing a wide range of the military necessities of war, not only for itself but for its allies, has called for the fullest use of its manpower and much of its equipment. Public policy has again become a major influence in conditioning the labor force, altering it as to size, structure, location of employment, duration of work, pay, living conditions, organization and bargaining power, training for skill, retraining, care of health, control over hiring and firing, speed of effort, and goals of production. Never before in our history has the American labor force been so strait-jacketed by its government; never have there been such a high level of employment, so little forced unemployment, or such high wages. All this was accepted because of war needs so compelling as to force us to risk our lives, health, and fortunes in winning a conclusive victory in order to maintain our democratic social system.

Certain important facts must be carried in the reader's mind as he thinks his way through the alternative suggestions for full employment in the postwar era. While the statisticians differ somewhat on the exact number of jobs required in the several occupational categories, figures assembled by government experts in Washington, the War Manpower Commission, the Census Bureau, the War Production Board, and the Bureau of Labor Statistics have been examined by the present writers which permit the following working summaries:

In March 1940, the total employed labor force was approximately 45,000,000. This was stepped up to approximately 64,000,000 by October 1944, a gain in the four and a half years of 42 per cent. While the armed services were a negligible percentage of the labor force in 1940, by 1944 they numbered slightly less than 12 million. It must be remembered that so far as wartime production is concerned the over-all demand for labor was reached during 1944. It is common observation that the net total of military personnel will level off at around 12 millions. Thus, the probable number of employed persons

who must be adjusted to a postwar society approximates 64 millions.¹

But this is a very crude figure indeed, hardly indicating anything more than the size of the labor force for whom productive employment may have to be provided. It includes oldsters some of whom will gladly return to their firesides once the demand of war patriotism and the unusually attractive conditions of the war economy no longer exist; wives and mothers some of whom will resume their domestic duties on a full-time basis; young men and women whose educations have been interrupted and who will go back to schools from factories, fields, and the armed services; some who will be killed or so maimed in action that they will not be numbered among the national labor force; and a very large number who will have to be retrained or trained for occupations oftentimes quite different from those they have been engaged in during the four or more years of the wartime economy.

The changes in productive effort made necessary to accomplish our war objectives are shown roughly in the shifts in employment by major industry groups from 1940 to 1944. With a total civilian labor increase of approximately 11 per cent, agriculture had declined by 14 per cent in the four-year span. The durable-goods industry upon which so much of the war effort depended required 10 per cent of all workers in 1940 but had almost doubled its number (96 per cent) in 1944. The nondurable-goods industry, which had engaged the attention of 12 per cent of the labor force in 1940, had added 8 per cent to its number by 1944. Mining suffered a decline of 11 per cent as the war effort progressed; but it was never a large user of labor in comparison with the total body of workers, having only 2 per cent of all workers in 1940. The collection of industries in trade, services, and finance, which employed a fourth of all workers in 1940, barely held its own against the demands of war production, to gain 3 per cent by 1944. Transportation and public utilities, which employed 6 per cent of the labor force in 1940, gained 22 per cent in number of workers by 1944.

Some parts of the construction industry, which had been harassed all during the decade of the depression, experienced

¹ For the complete figures in tabular form of this and the four succeeding paragraphs, see *Senate Small Business Committee, Its Record and Outlook*, Tables XV and XVI, February 12, 1945, Government Printing Office, Washington, D.C.

greatly increased activity in connection with the war effort, but on the whole it was treated roughly in the last four years—an industry which employed 4 per cent of all workers in 1940 lost 65 per cent of its number by 1944. Proprietors, self-employed workers, and domestic servants, who were 12 per cent of all workers in 1940, declined 1 per cent in the four years. Government workers, except in the armed services, were 8 per cent of all workers in 1940; but the expanded war effort increased their number 44 per cent by the time the war economy had reached its peak in 1944.

This picture of the labor force by major industrial groups does not tell what has happened to the major occupational groups during the four years of intensified war effort. That is suggested by the figures on shifts in these groups for about the same span of time as covered by the preceding data. While civilian labor as a whole increased 11 per cent, employed professional persons, who were 7 per cent of all workers in 1940, had declined 7 per cent by 1944; farmers and farm managers, who had been 11 per cent of the labor force, decreased 10 per cent in the four-year span; proprietors, managers, and officials, who numbered 8 per cent of the labor force in 1940, increased 17 per cent by the peak of the war effort; clerical and kindred workers, who constituted 10 per cent of the pre-war workers, gained 45 per cent by 1944; but the number of sales people, who were 6 per cent of all workers in 1940, had fallen off 15 per cent four years later. Craftsmen and foremen, who had made up 11 per cent of all civilian workers in 1940, gained 41 per cent by 1944; operatives in industry, whose number had been 18 per cent of all prewar workers, gained almost as much, 40 per cent; service workers, who were 13 per cent of all workers in 1940, declined 1 per cent by 1944; farm laborers were 6 per cent of the 1940 labor force but—in contrast to what happened to farmers and managers—increased substantially (28 per cent) by 1944; other laborers, who were 6 per cent of the experienced labor force in 1940, declined 10 per cent by 1944.

It will be recalled that two general influences were at work to cause many of these drastic occupational shifts. One was the enlistment and drafting of men for the armed services, in which a majority were retrained into soldiers, sailors, and marines doing work different from their usual peacetime occupations, a minor fraction only being put to work in their

customary skills.² The other was a tight government control of the economy to produce war materiel, to prevent major disturbances in the civilian economy, and to enlist the efforts of all citizens in the active support of the war effort. Neither of these general sets of conditions prevails in peacetime, so that the change back to the occupational pattern of the peacetime economy is based upon another drastic reshuffle of manpower.

An enlightened policy of guidance and training of masses of people for well-chosen peacetime pursuits would do much to lessen the chaotic character of this reshuffling process.³ At this writing in the beginning days of 1945 such a policy is not yet in sight, though it should be formulated well in advance of the avalanche of unemployment which will come with large-scale cutbacks in war contracts and demobilization of servicemen if we are to establish the substantial machinery required to do this huge job effectively and in time.

There is increasing agreement on the concept of full employment as the goal of the government and private industry in the postwar period. This is true whether the figure is placed at 60 million productive jobs, as set by President Roosevelt, or at some figure somewhat below that, as set by such organizations as the Committee for Economic Development, an employers' group whose goal envisages a considerable reduction from the peak of employed persons at the height of the war effort in 1944. Even the top figure of 60 million jobs means a reduction of from four to five million persons.⁴ Undoubtedly some of that five million will leave the ranks of labor volun-

² Despite the hoped-for upgrading of returned veterans from their wartime training and experience, figures for 1944 seem to show that the market demand for them is much as it had been in prewar years: "Discharged veterans to the number of 806,139 were placed in non-agricultural employment in 1944 by the U. S. Employment Service of the War Manpower Commission. Nearly half of them took unskilled jobs, and slightly over 130,000 went into skilled jobs. About 14,450 obtained professional and managerial positions" (*Monthly Labor Review*, March 1945, p. iii). It is possible, of course, that those discharged in 1944 were not an unselected sample of veterans.

³ See *Vocational Training Problems When the War Ends*, Vocational Division Leaflet No. 12, U. S. Office of Education, Government Printing Office, Washington, D. C.

⁴ From his intensive study of the labor force in the United States (with some comparisons with that of Great Britain and Germany), C. D. Long concludes that, as a percentage of the total population, the normal labor force has been remarkably stable over the last several decades. Its relative size seems to be determined by basic factors residing in the social structure of any Western urban society. He therefore concludes that the net wartime additions to the normal labor force in the United States—consisting chiefly of youths, women over 24, and persons over 54—have been exaggerated, and that the labor force after the war is likely to be larger than before the war only in proportion to the population growth." C. D. Long, *The Labor Force in Wartime America*, National Bureau of Economic Research, Occasional Paper 14, March 1944, especially sections 4, 9, and 10. Estimates of the size of the civilian labor force are given monthly in Bureau of the Census, *The Labor Force*. The estimate of May 14, 1945, is 51,930,000, of which 770,000 were unemployed.

tarily; but who these may be in terms of their occupational classifications and when and under what circumstances they will depart are conditions vital to a reasonable but as yet unknown solution of the problem of an adjusted labor force for full employment, or to planning and controlling the change-over to peacetime economic activity.

The guesses so far made as to the shape of the peacetime economic structure are loaded with such margins of probable error that speculation proves not much more than a mental gymnastic to those experts who indulge in it. Yet, here again, if the change-over is not to be well-nigh disastrous, the basic planning and programming must be blue-printed on several assumptions in order to make ready for that day when the numerous forces at work will bring the postwar economy into existence.

Largely as a convenience, some of the people dealing with the problem of providing 60 million remunerative jobs in the immediate postwar period begin with some measure of the amount of purchasing power or production which must be met if these jobs are to be available. Thus, the goal of approximately 190 billion dollars of gross national product, which is the total of goods and services produced, is presumed to be required for underwriting these 60 millions of jobs. By wartime standards and under the wartime pattern of economic activity, this is a completely attainable goal; for in 1944 the gross national product reached 196 billion dollars. But this level of production was secured with federal government expenditures totaling 91.6 billion dollars, state and local governments adding 7.2 billion dollars more, and a considerable proportion of the capital outlays for business resulting directly from the government-inspired war economy.

If the postwar peacetime economic effort accepts this overall goal of production, it must establish a pattern of production much different from that now in operation and a level of production substantially above the peak peacetime year of 1929, when the gross national product reached slightly less than a hundred billion dollars.

Purchasing power is the basis of employment, for it commands production and the employment of workers. It is possible that the piled-up savings of the people, the accumulations of the war effort, have provided the quantity and diffusion of purchasing power necessary to tide over the sharp dislocations

inevitable during the reconversion period and to establish the beginnings of the desired peacetime levels and types of productive effort. Backed by the commitment of the government, there may be found a body of enterprisers with sufficient courage to risk the attempt to tap these savings with expanded industrial production of goods and services. What will happen when this accumulation of savings is expended is the serious long-run problem facing those who rely upon released wartime savings to generate sufficient purchasing power to start the postwar economy on its way.

Many have presumed that the United States will find its postwar opportunity largely in an expanded foreign trade. They see in war-devastated Europe and Asia a ready market for immediate purchases of great size; they see in the accumulated dollar balances of our Latin-American neighbors and their pent-up demand for goods that they do not produce a continuing source of export trade; and in Asia, particularly China, they vision long-range demand for all that is modern and Western, together providing sources of never-ending business relationships favorable to the United States.

It is true that this country became of great importance in world trade following the last war, accounting for 15.6 per cent of world exports in 1929; but in that year exports from this country were only 9.8 per cent of all movable goods made here. We exported 16 per cent of such goods in 1919, having a dollar value of seven and three-quarter billions; by 1935 our exports dwindled to 6.4 per cent of movable goods produced, having a dollar value of two and a quarter billions.

But the whole story is not told by these figures; for to some segments of American industry foreign trade is quite important and to others it provides a margin between just breaking even and showing a profit. About 40 per cent of the machinery output of the United States is exported, and in some of the important components of that industry the percentage is even higher, so that whatever happens in the foreign markets to this large user of American labor directly influences the home labor market and employment.

It is an old and now-accepted truism that no continuing export business is possible unless it is offset by a reasonable quantity of imports from the purchasing countries. We are users of foreign raw materials, are in fact dependent on certain foreign countries for bauxite, tin, and other metals used

in manufacture. Hence our choice is not to determine whether we will or will not engage in foreign commerce with other nations. We are inevitably bound together with these nations, the prosperity of one affecting to some degree that of all others. But the part that such commerce may play in the full employment of our now expanded labor force depends finally on the level of our domestic prosperity, because the magnitude and importance of that trade are finally determined by how prosperous we are within our own borders. If our domestic economy is depressed, the demand for foreign goods and raw materials is lessened, and this in turn reduces the capacity and willingness of the exporting countries to buy from us. If it is prosperous, then the reverse is true.

That foreign trade can play some part, and in some particular industries a considerable role, in increasing and maintaining employment opportunities in the postwar period is apparent. But whether it will do so depends on so many factors—the speed with which liberated countries re-establish their own economies, revolutionary changes within backward countries which actually raise their standards of living as expressed in effective demand for manufactured goods, the ability to specialize in certain lines so as to offer the best exchangeable products, the lowering of tariffs, and such international organization as will free us and others from dominance by international and even world-wide cartels which stifle competition, divide markets, and control prices.

Some leaders in private business, and some economists in government who have studied the problems of the reconversion and postwar period conclude that a high level of continuous employment can be achieved in the period immediately ahead of us by stimulating a high level of private expenditures. To do this, they say that it is necessary to remove basic uncertainties which tend to repress the general level of private expenditures, to remove factors discriminating against the assumption of risk by private entrepreneurs, to smooth the fluctuations in private capital expenditures, and to prevent such expenditures from having a disastrous cumulative effect.⁵

Few would quarrel with these objectives, for they would undoubtedly assist considerably in stabilizing the economy

⁵ Offered by the economist winning the first award of the Pabst Postwar Employment Awards, made by a board of eminent economists and business leaders in 1944.

and its employment were it possible to apply them promptly and administer them adequately. But they require such an unpolitical atmosphere in which to operate successfully that Congress would have to be made over completely and the administrative arm of government so altered as to be unrecognizable if these goals are to be achieved. Even then it is highly probable that they could do little beyond assisting the private sector of the economy toward providing whatever measure of total employment it is capable of. For when the details of devices and programs offered to carry these objectives into effect are examined they are found to be the usual collection of immediately practical steps in cuts and change-overs from wartime to customary peacetime production, disposal of war surpluses in such a manner as to hinder the resumption of this production as little as possible, tax reform of questionable fundamental importance in achieving the goals set, and anti-monopoly proposals to insure price competition.

However helpful this several-fronted attack on unemployment might prove to be, whether these proposals would expand the economy sufficiently by putting back into circulation all the unused funds generated and drawn off in the normal and recent wartime business activity, and withheld from general circulation too long for them to provide effective demand, is doubtful. Bound up as they are with political considerations which make their legislative enactment doubtful and their application probably far below the level required, it is a gloomy prospect indeed if we are to look for such proposals to provide full employment in the immediate postwar period.

Another practical approach has been offered by Senator James Murray in his proposed budget of full employment. This requires the President to submit an annual budget of the probable level of private enterprise, an estimate of the number of people in the labor force, both employed and seeking work, and suggestions for providing such government activities as will enable the full complement of workers to be employed at remunerative work during an ensuing year. The proposal anticipates the necessity of probing far beyond present knowledge concerning the operation of the economy to determine what employment private business can provide, with the government stepping in only to fill the gap. It is a dynamic concept, challenging the leaders in both private and public sectors of the economy to meet the proposal of full employment with some adequate

implementation. The serious consideration which it is receiving attests the importance accorded the topic of full employment in peacetime.

But one and all of these numerous proposals and measures for improving the situation leave the impression on one who studies them carefully that much remains to be done before we are ready to meet the drastic shift of the economy from war to peace.

Any economy which seeks to provide the greatest measure of well-being for its people must look to the figure on unemployment as the barometer of success or failure. Any high level of employment, any appreciable amount of it in fact, should be of serious concern to those in charge of national policy and industrial enterprise.

We are apparently in a stage of development where the measures to be taken to provide full employment are a combination of private employment and public works, the latter being applied only if and when strenuous efforts made to maintain a high level of employment in the private sector have failed. The great hazard in this scheme is that it is essentially a political mechanism, subject to the pulling-and-hauling of pressure groups in the national Congress, in the executive departments, and in the state legislatures.

As experience has shown, workers, especially the unorganized, least well-placed, manual laborers, are ignored for all-too-long periods while such a cumbersome mechanism of public and private works is put into sufficiently high gear to include them in the body of employed workers. And there is always the threat, actually becoming a reality in older countries of Europe, that we shall become indifferent to their circumstances and provide through the regular channels of social security a dole which will maintain a considerable number of workers outside the system of production and distribution, unemployed except in quite unusual times, carried as drones in the productive hive of modern industry—rather than bestir ourselves sufficiently to devise ways and means of putting them to work at something useful to them and to society.

We have made only feeble and ineffective thrusts at the basic difficulties besetting the economy. Economic prosperity is possible only in a free-enterprise system when the potential productivity of the nation, based on the wise use of all elements in production, has become a reality as revealed in the

lack of widespread unemployment in the labor force and in relatively high level of living, widely maintained, with no segments of the population below a level of minimum comfort and health. In a technological society some means must be provided, by the intervention of government if necessary, so that the gains in productivity are passed on to consumers, in higher real wages to workers and in reduced prices to consumers of lowered-cost goods.

In lowered prices is to be found a potent means of lifting the circumstances of the lowest third of the population, for such prices affect the basic elements in their living standards more than those of more fortunate income groups. Without real competition provided by businesses actively seeking as much of the market as they can handle, lowered costs of production are not apt to be passed on to consumers promptly and in such measure as they should be.

There is no room in a free-enterprise system for uncontrolled private monopolies operating for private profit. They are enemies of that system, for they throttle competition and need meet few of the controls automatically at work in free business enterprise which pass on to consumers new advances in production and distribution. Not only do such monopolies, natural or man-made, require careful regulation, but many of them belong in the public sector of the economy, where they may be conducted as nonprofit services for the public good, the goal being the widest use of their products at the lowest price commensurate with sound operation.

In a democracy, the steady cultural improvement of its people is a fundamental concern of the state. How its workers are employed is perhaps the most important single element in that improvement, for a better popular culture depends on circumstances favoring the widest use of the creative energies of the people. In the prevailing unsound situation a substantial percentage of all workers are subjected to many hazards of work and living conditions, suffer much unemployment, and are deprived of cultural opportunities, while at the peak of the pyramid are too few professional persons to provide a reasonable amount of their important services at even exceptional prices. Yet few seem to understand that we can have as many competent workers with a better cultural equipment at any grade of labor as we will to have. This has been pointedly demonstrated in the present war effort, when train-

ing institutions have been opened, and workers have been attracted to them by removing the barriers to obtaining competency and by offering increases in pay and better circumstances on the job for those qualifying.

The same incentives will produce similar results in peacetime. Yet many professions and trades, intent upon preserving their preferred status, seek to freeze their numbers, either by erecting barriers to admittance to training or by high costs and long-drawn-out periods of training, and cumbersome systems of qualifying examinations and certification few of which have been subjected to rigorous scrutiny in order to determine what is required to produce a suitable number of qualified workers in any particular calling.

Upgrading of labor will not only expand the national income but will reduce unemployment, for it will remove some of the pressure of the masses of little skilled workers at the lowest levels where most unemployment is found. In a well-known study of real wages, it was estimated that the gain resulting from this shifting of labor to higher-paid jobs added over a brief period of years some 12 per cent to the total of real income.

We incline to the belief that this removal of occupational barriers and a deliberate attempt to train and retrain workers for superior callings holds the promise of favorable results. What is needed is a comprehensive policy of public education, a program of vocational training and guidance based on a realistic analysis of the occupational situation and the trends in occupations. With the adjustments to peacetime conditions, the opportunity of a generation presents itself in returning soldiers numbering many millions, whose youth, lack of work experiences, and eager desire to find a place in normal life make them ripe material for such a program. Added to these are the people in private industry who will be uprooted, no matter how effective may be the reconversion program, and who will be seeking other occupational opportunities. Here are the makings of a vocational-adjustment program which will do much to establish a more correct occupational situation in the United States and to implement in a practical way the fundamental concept of equality of opportunity.

WARTIME EMPLOYMENT IN MINING, MANUFACTURING, AGRICULTURE, AND RAILROAD TRANSPORTATION

Much is told of wartime production and employment in the table below (p. 102). The figures refer to 35 representative-industry groups in mining, manufacturing, agriculture, and railroad transportation—four divisions of the economy which, in a March week of 1940, embraced almost 45 per cent of all active workers. All comparisons are made with the figures for 1939, a relatively good prewar year. Since the comparisons are shown by indexes, the index for 1939 is 100. Reading across the first line of the table, one observes that in bituminous-coal mining an over-all increase in production of 57 per cent from 1939 to 1944 was associated with an over-all decline of 4.5 per cent in the number of workers. This decline in the face of so great a production gain is obviously explained in great part by the extensive use of overtime, shown by a coincident increase of about 40 per cent in the number of man-hours, and also by a considerable advance in man-hour output, amounting to 12.2 per cent.

MINING AND MANUFACTURING

An examination of the production column down through the entire table confirms the prevailing impression of a great expansion in output during the five-year period in all four divisions of the economy. The highest gain of all was made in railroad transportation at 144 per cent, the next highest in iron mining at 103 per cent.

In mining and manufacturing, when the peak year in production only is considered for the 31 groups reporting, a count shows that not one of the industry groups listed had a production record smaller than that of 1939. One-half of all made a gain in output above 40 per cent; another quarter registered advances of from 22 to 39 per cent; the fourth quarter was limited to lesser gains, that of smoking and chewing tobacco, for example, amounting to no more than 0.3 per cent.

Twenty of 31 groups reached their highest production before 1944. Six of these fell below their 1939 production by that year. These declines following an earlier high point may be set down to earlier urgent military requirements which later slackened, to the curtailment of production for civilian con-

sumption, or to both, and probably to other explanatory circumstances.

It will be observed that the advances in output at the peak year of production quite uniformly exceed substantially those shown in the other three columns. Obviously, the need of wage earners is reduced below what it might be by the use of overtime and by an increase in output per man-hour. Reading down the column headed "man-hours," one finds that in only three comparisons is the increase in man-hours less than in the number of workers. Overtime was therefore probably almost universal in these industries.

The increase in output per man-hour was also quite general, only one mining and two manufacturing industry groups showing at the peak-production year a percentage decline from 1939, when the production record equaled or exceeded that of this year. One-half of the groups reporting gains in output per man-hour made advances of from 2 to 9 per cent, one-third of from 10 to 17 per cent, and the remaining five of from 26 to 47 per cent. This highest advance occurred in ice-cream manufacturing in 1942; the next highest, in rayon and allied products manufacturing in 1944, was 41 per cent.⁶

It is interesting to note that, where there was a decline in production in 1944 following an earlier peak, 8 of 20 cases increased their output per man-hour in spite of lessened production. Five of these were in mining. Wartime gains in man-hour productivity may even be exceeded in the immediate post-war period, when a lessened demand and the shift to production of civilian goods will permit management to choose the most competent workers.

The failure of the number of wage earners to keep abreast of production now becomes intelligible. In only 2 of 30 industry groups was the advance in number of workers greater than that in production. In both of these (flour and other grain-mill products, newspaper and magazine printing and publishing) output per man-hour was noticeably low in 1944.

In the postwar period the elimination of overtime may be expected to give work to more wage earners, especially with an anticipated increase in production over that of 1939. But

* "Productivity increases were the result of labor-management committees, more experienced workers, wage incentive plans, the shift from custom building to mass producing, the release of skilled men by corporate labor hoarders, and general stabilizing of employment combined with controlled hiring in critical areas." *Economic Notes*, Labor Research Association, May 1944.

this expansion of work opportunity will be positively moderated by what appears to be a general permanent gain in output per man-hour. This is the basic showing of this section of the table. Employment will not increase in proportion to the advance in production. Allowance must therefore be made for this important fact in all forecasts of postwar job opportunity in mining and manufacturing, and presumably in other sections of the economy.

3

AGRICULTURE

Production gains from 1939 to 1944 are less striking in agriculture but are nevertheless impressive for an industry as yet only moderately mechanized. The over-all advance for the country was 16 per cent, with a range among 11 areas (not shown in the table) of from 5.6 to 69 per cent. This highest increase, in the small-grain area, is noteworthy and compares favorably with the higher gains made in mining and manufacturing.

These gains were made with an appreciably smaller working force (6.5 per cent less), as indicated in the second column. They were obviously achieved by a higher productivity per worker employed, amounting to 24 per cent for the country, and attaining a 72 per cent advance in the small-grain area. Man-hours are not recorded in agriculture. The depressing effect on employment of a higher productivity is again suggested, although overtime may have played a part in the increase of production per worker.

Farm food production, with a peak in the several products listed at some year between 1942 and 1944, was uniformly above that of 1939, reaching a gain for the total of about 20 per cent in 1943. The greatest advance was in the production of poultry, which reached 36 per cent by 1944.

RAILROAD TRANSPORTATION

The over-all gain in 1944 over 1939 in the number of traffic units carried was 144 per cent, the largest advance shown on the entire table. But the increase in the space provided, as shown by car-miles, although large, was less than half as much (66.6 per cent). Obviously, the difference is due chiefly to the heavier loading of the cars with passengers and freight. The very large increase in the load carried and in the number of car-miles was achieved despite a relatively smaller gain in

the number of operating employees (45.7 per cent) and as a result of the increase in overtime, shown by the index for man-hours (64.7 per cent). Productivity as measured by car-miles per man-hour advanced only 1.2 per cent over 1939, but because of the heavier loading of the cars it showed an advance of 48.1 per cent when measured by the number of traffic units carried per man-hour. It would appear from this showing that railroad employment was less affected by man-hour productivity than that of other industries considered and was much more determined by the amount of traffic.

WARTIME INDUSTRIAL PRODUCTION AND EMPLOYMENT

INDEXES OF PRODUCTION, NUMBER OF WAGE EARNERS, NUMBER OF
MAN-HOURS, AND OUTPUT PER MAN-HOUR, 1939-1944*
(1939 = 100)

MINING PRODUCTION

Industry	Production Index	Wage Earners	Man- Hours	Output per Man-Hour
Bituminous coal	157 0	95 5	139 9	112 2
Anthracite	122 9	81.4	117.0	105 0
Crude petroleum, natural gas, and natural gasoline	135 7	85.5	106.9	126 9
Iron { 1944	182.9	135.3	164.5	111 2
{ 1942	202.7	155 3	183.1	110.7
Copper, recoverable metal { 1944	133 0	108 6	117.2	113.5
{ 1943	149 8	131.8	144.4	103 7
Copper, ore { 1944	164.3	.....	.....	140 2
{ 1943	177.6	.....	.....	123.0
Lead and zinc, recoverable metal { 1944	114.6	105 3	120.2	95.3
{ 1942	127.4	125.0	139 8	91.1
Lead and zinc, ore { 1944	154 9	.....	.....	128 9
{ 1943	155.4	.....	.....	112.0

MANUFACTURING PRODUCTION

	Production Index	Wage Earners	Man- Hours	Output per Man-Hour
Agricultural implements . . . . .	.....	161.4	207.2	. .
Boots and shoes { 1944	95 0	79.8	90.3	105 2
{ 1941	119 0	99.3	105.1	113.2
Bread and other bakery products	135.7	112.1	122.0	111.2
Cane-sugar refining { 1944	120.7	104.2	125.7	96 0
{ 1941	122.6	103.6	108.1	113.4
Canned and preserved fruits and vegetables { 1944	145 9	108.7	117.1	124 6
{ 1942	165.2	115.2	120 8	136.8
Canned and cured fish { 1944	89 1	81.5	89 7	99.3
{ 1941	106.7	102.8	95 2	112.1

* The figures for 1944 are preliminary. Where the peak in production occurred in a year other than 1944, the figures for this year are shown in addition to those for 1944. Source: Productivity and Technological Division, U.S. Bureau of Labor, Releases of May 1945. See these releases for coverage and methods

	Production Index	Wage Earnings	Man- Hours	Output per Man-Hour
Cement { 1944	73 6	72 9	87 1	84 5
{ 1942	148 2	122 0	136 7	108 4
Confectionery	140 4	116 8	128.4	109 3
Cotton goods { 1944	126 6	111 0	126 2	100 3
{ 1942	146 1	127 8	142 9	102 2
Fertilizers	158.0	116 9	145 0	109 0
Flour and other grain-mill prod- ucts	113 2	115 7	134 8	84 0
Ice Cream { 1944	144 2	95.9	96.5	149.4
{ 1942	151 8	103 4	103 2	147.1
Leather { 1944	113.6	85 0	99 5	114 2
{ 1942	132 1	107.0	113 4	116 5
Lumber and timber products: saw- mills { 1944	118 1	107.8	119 3	99 0
{ 1941	133.5	124 3	126 6	105.5
Newspaper and periodical printing and publishing { 1944	86.0	92.9	98 3	87 5
{ 1941	107.7	102 0	101 4	106.2
Nonferrous metals—primary smelters and refineries { 1944	125 8	109 3	130 2	96 2
{ 1943	139 7	121 9	140 7	99 3
Paints and varnishes	141 6	106 0	124 1	114 1
Paper and pulp { 1944	117 6	106 5	126 8	92 7
{ 1941	129 9	114.8	121 6	106 7
Petroleum refining		121 0	156 2	
Rayon and allied products	174.8	109.1	123 5	141 5
Slaughtering and meat packing	162 8	130.6	159 2	102 3
Cigars { 1944	93.7	70 5	85 2	110.0
{ 1942	111.7	99 1	108 2	103.2
Cigarettes	178 2	140 5	158 2	112 6
Chewing and smoking tobacco, and snuff { 1944	89.4	87 8	105 0	85 1
{ 1940	100 3	94.0	96 2	104.3
Woolen and worsted goods { 1944	137.0	101.1	117 2	116.9
{ 1943	138 0	111.9	127 9	107.9

AGRICULTURAL PRODUCTION

	Production Index	Wage Earnings	Output per Worker
United States	115.9	93 5	124 0

PRODUCTION OF FARM FOOD PRODUCTS

	Production Index
Meat animals { 1944	121.5
{ 1943	131 6
Poultry	136.6
Milk { 1944	111.4
{ 1942	111.7
Wool { 1944	95.4
{ 1942	107.9
Total { 1944	117.6
{ 1943	119.8

RAILROAD TRANSPORTATION—CLASS I RAILROADS

Service Rendered		Employees (Operating)	Man- Hours	Traffic per Man-Hour	Car-Miles per Man-Hour
Traffic	Passenger-Miles and Freight Ton-Miles				
	244 0	145.7	164 7	148 1	101.2

POSTWAR EMPLOYMENT PROSPECTS

Forecasts of postwar employment are necessarily tentative, since they are contingent upon conditions which can be only incompletely anticipated. Below are given illustrations of forecasts made by informed research agencies for certain important industries. If read with their limitations in mind, they may serve as helpful suggestions of postwar probabilities. The agencies quoted are interested primarily in work opportunities. An additional source, one not used here and one more concerned with business enterprise, is the *Industry Series of the National Industrial Conference Board of New York*; in it current trends in numerous industries are reported, with some reference to postwar probabilities. Postwar expansion or curtailment of business in a given industry corresponds roughly, but not precisely, with its probable rise or fall in employment opportunity.

The forecasts here included may be profitably read in the light of the wartime trends as shown by the indexes in the table above, for the corresponding industries.

A. FROM LABOR MARKET INFORMATION FOR UNITED STATES EMPLOYMENT SERVICE COUNSELING, INDUSTRY SERIES, WAR
MANPOWER COMMISSION

1. *Air Transportation*

"Many persons believe that the end of the war will mark the beginning of a tremendous expansion of the commercial air lines, with consequent abundant employment opportunities. These predictions should, however, be treated with caution since there is general agreement that whatever expansion occurs will be confined predominantly to passenger service The anticipated load depends, to a great extent, on whether passenger fare rates are reduced to levels not substantially higher than railroad rates. It is believed that the large number of new route applications on file will result in the con-

struction and maintenance of 3,000 domestic airports in addition to the 3,000 now in use.

"The tremendous wartime expansion of the air service branches of the Armed Forces can supply large surpluses of applicants for each job that may develop However, in the post-war period, there may develop a secondary industry in servicing and maintaining facilities for private plane operations. These will depend upon whether an expanded market for popular-priced planes develops after the war . . ." (Series 43-1, July 1944). See also "Post-War Outlook in Aviation Occupations," U.S. Department of Labor, *Monthly Labor Review*, April, June 1945.

2. *Aluminum and Magnesium*

"The long-range (5- to 10-year) outlook is somewhat better than the immediate post-war prospects. However, while there may be good employment opportunities in some fabricating plants, persons wishing to enter the light-metal fields should not be misled by optimistic reports concerning its eventual long-range expansion into expecting numerous job opportunities or rapid promotion immediately . . ." (Series 35-1, December 1944; see *Hearings before the Special Committee to Study and Survey the Problems of Small Business*, U.S. Senate, Parts 47, 48, 49, "The Future of Light Metals," Government Printing Office, 1945).

3. *Bituminous Coal Mining*

"There is little question that employment in bituminous coal mining will not be maintained at wartime levels. Long-term factors which will continue to influence the volume of mining employment are (a) the increased use of machinery with a resultant decrease in labor needs, and (b) rising competition from petroleum, natural gas, and water power as sources of fuel for industry" (Series 12-1, July 1944).

4. *Cotton Textiles*

"Employment prospects are bright for the immediate post-war period Professional employment opportunities now are limited to replacements. Cotton textile technicians, especially engineers and chemists, may be in demand abroad The industry also expects to make a strong bid for an increasing share of the Nation's income by introducing newly developed textile products and fabrics" (Series 22-1, July 1944).

5. *Iron and Steel*

"Since iron and steel are basic industrial materials, the demand for these products in the post-war period will depend on the general level of economic activity Employment may rise to pre-war levels of over a half a million workers" (Series 33-1, July 1944).

6. *Logging Camps and Lumber Mills*

"All branches of the industry will continue to offer employment prospects in the immediate post-war period the tremendous pent-up demand for civilian housing construction and repair will absorb the slack [occasioned by the decline of military needs]. An unsatisfied demand also exists at the present time for furniture Our foreign markets will also return and it is anticipated that these will rise far above pre-war levels.

*Total and per-capita consumption of wood have shown declining trends over the past 40 years, temporarily halted by the war. Long-range consumption prospects will depend to a large extent on the quality and quantity of timber supply, as well as on the ability of the industry to recapture markets lost prior to the war, gain new ones, and retain those acquired during the war. Some authorities think that our forests cannot stand a continued drain at the second World War rate, and that production will have to decline until second-growth timber becomes available. . . . Successful market competition will depend to some degree upon the development of new wood uses and products and the lowering of production costs" (Series 24-1, January 1945).

7. *Merchant Marine*

"Just before Pearl Harbor only about 50,000 men were employed on American ships and about 2,000 on foreign-flag vessels. In April 1944 about 135,000 men were manning our ships, with an estimated 38,000 more required by the end of 1944 The amount of employment which will be made available by the resumption of passenger traffic after the war is very uncertain, because of the contemplated active competition from transoceanic airlines and because of the great loss of passenger vessels during the war as a result of sinkings and conversions to war purposes It is probable that even with extensive subsidies there will be a post-war decline in

maritime employment from the wartime level. It may be expected that many Navy men . . . will desire employment in the merchant marine" (Series 44-1, July 1944).

8. *Plastic Materials*

"Even on the basis of exceedingly optimistic assumptions, it is not likely that in the immediate post-war period the industry will employ more than 50,000 persons, or about 20,000 more than at present. The actual number may be less . . . There are openings for organic chemists, chemical and mechanical engineers, and accountants . . ." (Series 28-1, July 1944).

9. *Railroads*

"After the war, when veterans and other pre-war workers have returned, job opportunities for newcomers will probably not be so numerous as in pre-war days, when about 50,000 persons entered the industry each year. Total employment is expected to drop . . . The volume of employment, however, will depend on the extent to which the railroads can modernize and cut the cost of their services to compete successfully with the automobile, truck, and plane" (Series 40-1, July 1944).

10. *Slaughtering and Meat Packing*

"Employment will probably remain close to the 1943 average of 165,000, especially if a high level of national income is maintained in the post-war period, permitting a large volume of sales . . . there are several factors which may tend to keep employment high . . ." (Series 20-1, October 1944).

11. *Street Railway and Motor Bus Transportation*

"Post-war employment prospects are fair . . . the trend in recent years has been away from the use of two-man street cars and toward the one-man streamlined car, so that fewer workers will be needed as vehicle operators. In many places the trolley bus is replacing the street car . . . fewer workers will be needed to maintain track and roadway. The major causes for the decline, however, will be the expected shrinkage in the number of persons . . . who must depend upon local public transportation facilities. Traffic in the *inter-city* bus field is expected to increase slightly or remain at about the same high level as at present . . .

"More than a million men in the Army have received extensive training in motor vehicle operation and repair Consequently it is expected that post-war competition for jobs will be keen, particularly in bus operation and repair" (Series 41-1, December 1944).

12. *Trucking*

"All indications point toward a post-war expansion of the industry, in spite of heavy competition from railroads and airlines There will be many people seeking jobs in trucking, however large numbers of men (and women) have been trained as drivers and as motor (and tank) mechanics in the Army. Opportunity for untrained persons wishing to enter the industry for the first time will be quite limited" (Series 42-1, October 1944).

B. FROM LABOR RESEARCH ASSOCIATION, "ECONOMIC NOTES,"
80 EAST 11TH ST., NEW YORK CITY

13. *Aircraft*

"The aircraft manufacturing industry of the United States is at present considered the largest manufacturing industry in this or any other country

"In no field of postwar production are there more widely varied predictions than those relating to this industry On the basis of the more conservative figures it is estimated that total output of the aircraft industry may be \$1 billion or less after the war. It is obvious that such a comparatively low level of production would involve the virtual scrapping of many large airplane plants and the discharge of hundreds of thousands of workers. As the *Guaranty Survey* puts it, 'It is difficult, on the whole, to foresee any early prospect of peacetime aircraft production and employment greatly exceeding 10 per cent of the probable wartime peak' " (May 1944).

14. *Automobiles and Trucks*

"Even if we assume that the industry, within a year or two after conversion is completed, might reach a peak of 6 million cars and trucks a year, the number of workers required to produce these units will be substantially under the number currently on its payrolls and even if productivity should slump to only about 10 per cent over the 1939 level, the number of workers would be curtailed, under a normal 40-hour week

schedule, to about 600,000 compared with the 689,000 estimated as working in the industry in 1943 •

"But assuming that after from two to four years the war-accumulated demand for cars is satisfied, the volume of output then, under the normal conditions of the capitalist market, is likely to decline substantially. At that time, with increased productivity, the number of workers might very well drop to a level nearer that of the prewar years, or to between 400,000 and 500,000" (January 1944).

15. *Chemical Industry*

"Number of wage earners employed rose from an average of 288,000 in 1939 to 731,000 in 1943. The biggest increase came . . . in plants making ammunition and related products, explosives, gases and the like The peacetime chemical industry, including paints, perfumes, cosmetics, rayon, cottonseed oil, fertilizers, etc., has expanded relatively little during the war years

"For the duration of the war chemical output will doubtless run high but the general trend will be downward. In the period following the war the industry will doubtless employ many more workers than before 1939 and have a larger output from the development of new products It is estimated that, due to the decline of munitions chemicals, possibly 300,000 workers will be thrown out of work in the industry as a whole" (July 1944).

16. *Construction*

"Considering all the various factors, the construction industries as a whole seem to be in a good position to stage a big comeback when the war restrictions are removed. And not even the great increase in building costs is likely to hold up this movement.

"It is quite possible that within a few years after the war the total new construction will be nearly twice as great as during 1937, which was a very active year in business and production. It might even approach the levels reached in the boom years of the 1920's. In fact total new construction of more than \$10 billion a year is probable in the postwar period. This would bring us about even with the level of the prosperous year 1929 somewhere between 1.5 million and 2 million persons may be employed in the construction industry and

possibly 2.5 million persons in the combined construction and building materials industry" (March 1944). See also three articles on postwar construction in U.S. Department of Labor, *Monthly Labor Review*, February, March, and April, 1945, and "Skilled Labor Bottleneck in Post-War Building," *Business Record*, National Industrial Conference Board, New York, May 1945.

17. *Machine Tools*

"This industry consists of some 300 companies which in the years before the war seldom had a combined annual output of more than \$200 million. But the war has given a tremendous stimulus to the industry. It increased its output more than sixfold and its employment more than threefold Employment in the industry increased from around 37,000 in 1939 to 120,000 at the peak month in 1942. But in 1944 employment may average less than 80,000

"The productivity of the machine tool industry is much higher than before If after the war the output of new tools should decline to the 1939 level, which was a relatively good year, the number employed in the industry might very well drop below the 36,600 wage earners on the job in that year" (April 1944).⁷

18. *Shipbuilding*

"The shipbuilding industry has performed miracles of production during the war At the end of the war this country will have the world's largest cargo fleet—more than 50 million tons before the war the combined tonnage of all the world was only 60 million tons. Even if the United States after the war should maintain a merchant fleet of 15 to 20 million gross tons, which would of course be greatly in excess of the pre-war fleet, and even if several million tons of merchant ships should be used as naval auxiliaries, there would still be left from 23 to 30 million tons for which no immediate use might be found under peacetime conditions. A good deal of the 'excess' tonnage would probably be in Liberty ships which might be transferred to other nations to

⁷ *Hearings before the Senate Small Business Committee* in 1945 revealed a substantial number of machine tools valued at more than \$4,000,000,000, made for war purposes, which will be available for peacetime uses. For many types of tools this represents a number of years' demand. These wartime surpluses will have a decided effect upon postwar employment in the machine-tool field. See the following footnote.

aid in the expected big world expansion of foreign trade

"Number of workers in the shipyards of the country had grown from 63,000 in January, 1935, to about 1,722,000 by the end of 1943. This is probably the peak employment for the war

"Officials of the Industrial Union of Marine and Shipbuilding Workers of America (CIO) foresee serious problems of reconversion and reemployment in the postwar days. The number of shipbuilding workers may be cut to 250,000 or less, including those employed in repair yards and some 70,000 then employed in government navy yards" (June 1944).

19. *Small Business*

"At the beginning of the war, in September, 1939, about 3,317,000 business firms were operating in this country. Out of this number more than 45 per cent were run by a proprietor who had no employees working for him. About 37 per cent of the total had only from one to three employees. In other words, only 18 per cent of all operating business firms . . . had four or more employees.

"The 3.3 million small business concerns at that time gave employment to a total of 28,464,000 people, including paid employees, entrepreneurs and unpaid family workers. But the firms with less than four employees provided work for only 17 per cent of this total The remaining 18 per cent, employing four or more employees, gave work to 83 per cent of the total number.

"The figures show further that the 4,900 firms (less than 0.15 per cent of the total businesses) that employed 500 or more, showed an employment of 11,489,000 or over 40 per cent of the total number of people then employed in all business firms.

"During the war the over-all reduction of 14.6 per cent in the total number of firms was concentrated in those with less than four employees, especially in retail trade figures make it clear that many small businesses have been hard hit by the war but that the survivors are doing a much larger volume of business than before the war.

"In all the talk about setting up millions of returning war veterans in new small businesses the basic facts should not be forgotten. For the figures indicate that at best small independent business gives employment to relatively few people.

They show also that the war has reduced the number of such firms and that the larger firms have been taking over an increasing share of the volume of business, particularly in such lines as retail trade, transportation, and finance. On the whole, the long-term trend seems to be toward larger size and a larger proportion of all employees being employed in large-scale establishments.

"Note also that the total number of operating businesses in 1939, just before the war began in Europe, was only 10 per cent greater than in 1929, and at the end of 1943 was 8 per cent smaller than in 1929" (April 1945).⁸

C. FROM OTHER SOURCES

20. Aluminum Products

"Assuming weekly hours at 40 and a somewhat smaller consumption of aluminum by the industry per man-hour because of reversion to peacetime products and the smaller scale of production, the level of employment in the early post-war years will probably not exceed 50,000 (the level at the end of 1940), unless the more optimistic forecasts of aluminum consumption are realized" (U.S. Department of Labor, *Monthly Labor Review*, February 1944, p. 305).

21. Wool-Textile Industry

A Conference Board publication anticipates a large demand for woollen goods immediately after the war, especially in high-priced lines, but increased competition of British woollen goods is also expected. Much depends upon government tariff policy. The wool trade is concerned about competition from rayon, nylon, and other synthetics, since fleecy fibers in these materials have been developed. But the trade still has the advantage of a public preference for "all wool" goods.

22. Farm-Implement Industry

The *Outlook*, of New York, of June 4, 1945, refers to the improved financial position of the farmer, the development of several new types of machines, and the extension of mechanization to the small farm as factors favoring a demand for farm equipment well above prewar levels.

⁸ Readers interested in this topic should watch for the publications of the Special Committee to Study and Survey Problems of Small Business Enterprises, U.S. Senate, available at the Government Printing Office, Washington, D.C.

D. ADDITIONAL SOURCES

Numerous business journals put out material on current trends and postwar probabilities in business enterprise. Among these are the National Industrial Conference Board's *Business Record* and *Economic Record*, New York; Standard and Poor's *Outlook*, New York; *Babson's Business Service*, Wellesley Hills, Mass.; *United States Business Service*, Boston; Kiplinger's *Washington Letter*, Washington, D C. Mention should be made of the *Economic Outlook* of the Congress of Industrial Organizations (C.I.O.), New York. On the inside front cover of *Occupations*, Max E Baer prints allusions to trends in "Washington Flashes."

APPENDIX

In Table I, below, the number and percentage of experienced workers in major occupational groups for the United States in 1940 are given by sex; and in Table II, the number of experienced workers in particular occupational groups for the United States in 1940 are arranged by sex. The enumeration of experienced workers in Table I excludes persons seeking work who never have worked on a private or government job or at public emergency work for one month or more, full time.

Table I is derived from Table V, page 10, of "Population": Volume III, *The Labor Force, Part I, United States Summary, Sixteenth Census of the United States, 1940* (Government Printing Office, Washington, D.C., 1943).

The figures used in Table II are taken from Table II, pages 49-58, of "Population": *Comparative Occupation Statistics for the United States, 1870-1940*, by Dr. Alba M. Edwards, *Sixteenth Census of the United States, 1940* (Government Printing Office, Washington, D.C., 1943). Table III is taken from the same source, page 187.

TABLE I
NUMBER AND PERCENTAGE OF EXPERIENCED WORKERS IN MAJOR OCCUPATION
GROUPS, BY SEX, IN THE UNITED STATES IN 1940

Group	Number			Percentage		
	Total	Male	Female	Total	Male	Female
Experienced labor force..	52,022,158	39,481,880	12,540,278	100 0	100 0	100.0
Professional and semi-professional workers ..	3,549,354	2,006,073	1,543,281	6.8	5.1	12.3
Proprietors, managers, and officials, including farmers	9,026,984	8,443,063	583,921	17.4	21.4	4.7
Clerical, sales, and kindred workers	8,307,490	4,809,619	3,497,871	16 0	12 2	27.9
Craftsmen, foremen, and kindred workers	5,877,094	5,751,857	125,237	11 3	14.6	1.0
Operatives and kindred workers	9,415,901	7,009,752	2,406,149	18.1	17 8	19.2
Protective service workers	740,876	733,420	7,456	1.4	1 9	0.1
Service workers, except protective	5,517,194	1,900,476	3,616,718	10.6	4 8	28.8
Laborers, including farm	8,605,256	8,139,309	465,947	16.5	20.6	3.7
Occupation not reported..	982,009	688,311	293,698	1.9	1 7	2.3

TABLE II

NUMBER OF EXPERIENCED WORKERS IN PARTICULAR OCCUPATIONAL GROUPS,
BY SEX, IN THE UNITED STATES IN 1940

Occupation (1940 Classification)	Total	Male	Female
Professional and Semiprofessional Workers			
Actors, dancers, showmen, athletes, etc.	97,361	72,937	24,424
Actors and actresses	19,232	11,611	7,621
Dancers, showmen, and athletes . .	54,254	37,707	16,547
Motion-picture projectionists . . .	23,875	23,619	256
Architects	21,976	21,479	497
Artists and art teachers	62,485	41,338	21,147
Authors, editors, and reporters . . .	77,619	57,123	20,496
Authors	14,126	9,520	4,606
Editors and reporters	63,493	47,603	15,890
Chemists, assayers, and metallurgists .	60,005	58,271	1,734
Clergymen	140,077	136,769	3,308
College presidents, professors, and in- structors	75,847	55,723	20,124
Dentists	70,601	69,534	1,067
Civil engineers and surveyors . . .	105,486	105,154	332
Civil engineers	89,042	88,811	231
Surveyors	16,444	16,343	101
Electrical engineers	55,667	55,443	224
Mechanical and industrial engineers .	95,346	95,044	302
Mechanical engineers	85,543	85,315	228
Industrial engineers	9,803	9,729	74
Chemical, mining, and metallurgical engineers	21,373	21,240	133
Chemical engineers	11,600	11,541	59
Mining and metallurgical engineers .	9,773	9,699	74
Lawyers and judges	180,483	176,036	4,447
Musicians and music teachers	161,536	95,280	66,256
Osteopaths	6,067	4,965	1,102
Physicians and surgeons	165,629	157,921	7,708
Social, welfare, and religious workers	110,369	35,946	74,423
Social and welfare workers	75,197	26,828	48,369
Religious workers	35,172	9,118	26,054
Teachers (n.e.c.,* including county agents)	1,076,001	269,141	806,860
Teachers (n.e.c.)	1,065,280	263,016	802,264
County agents and farm demonstra- tors	10,721	6,125	4,596
Trained nurses and student nurses . .	371,066	8,169	362,897
Veterinarians	10,957	10,858	99
Other professional workers	129,099	67,883	61,216
Librarians	38,607	4,061	34,546
Professional workers (n.e.c.)	90,492	63,822	26,670
Designers and draftsmen	111,805	101,380	10,425
Designers	23,614	14,743	8,871
Draftsmen	88,191	86,637	1,554

* Wherever used in this table, "n.e.c." means "not elsewhere classified."

TABLE II (Continued)

Occupation (1910 Classification)	Total	Male	Female
Professional and Semiprofessional Workers (Continued)			
<i>Other semiprofessional workers:</i>			
Aviators	6,299	6,248	51
Chiropractors	10,869	8,958	1,911
Funeral directors and embalmers . .	39,590	37,416	2,174
Healers and medical service workers (n.e.c.)	20,575	10,625	9,950
Optometrists	10,357	9,882	475
Photographers	37,641	32,578	5,063
Radio and wireless operators	11,573	11,456	117
Technicians and laboratory assistants	75,246	51,774	23,472
Technicians and assistants, labora- tory	67,158	44,507	22,651
Technicians, except laboratory . . .	8,088	7,267	821
Semiprofessional workers (n.e.c.) . .	80,131	69,804	10,327
Farmers and Farm Managers			
Farmers (owners and tenants)	5,265,271	5,112,024	153,247
Farm managers (See under Farm La- borers and Foremen, page 128)			
Proprietors, Managers, and Officials, Except Farm			
Railroad conductors	47,465	47,465	....
Postmasters, and miscellaneous govern- ment officials	239,813	204,857	34,956
Inspectors, United States	17,386	17,001	385
Inspectors, state	13,929	13,456	473
Inspectors, city	12,284	12,018	266
Inspectors, county and local	1,254	1,220	34
Officials, United States	61,594	57,940	3,654
Officials, state	20,767	19,011	1,756
Officials, city	28,754	25,096	3,658
Officials, county and local	44,685	36,616	8,069
Postmasters	39,160	22,499	16,661
Advertising agents	35,692	31,950	3,742
Country buyers and shippers of live- stock and other farm products . .	40,416	39,867	549
Credit men	31,110	27,387	3,723
Officers, pilots, pursers, and engineers, ship	35,155	35,038	117
Officials, lodge, society, union, etc....	25,764	21,359	4,405
Purchasing agents and buyers (n.e.c.)	33,359	30,626	2,733
<i>Proprietors, managers, and officials (n.e.c.), by industry:</i>			
Mining	32,001	31,607	394
Construction	125,696	124,438	1,258
Manufacturing	428,328	410,046	18,282

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Proprietors, Managers, and Officials, Except Farm (Continued)			
<i>Proprietors, managers, and officials (n.e.c.), by industry (Continued)</i>			
Transportation, communications, and utilities	142,134	136,172	5,962
Railroads (includes railroad repair shops)	32,242	31,961	281
Street railway, bus, taxicab, and trucking service	35,882	34,746	1,136
Street railways and bus lines	5,827	5,663	164
Taxicab service	2,892	2,759	133
Trucking service	27,163	26,324	839
Warehousing and storage	7,599	7,414	185
Miscellaneous transportation	13,303	12,791	512
Communication	23,361	20,110	3,251
Utilities	29,747	29,150	597
Eating and drinking places	273,163	207,059	66,104
Wholesale and retail trade, except eating and drinking places	1,926,882	1,740,306	186,576
Food and dairy-products stores	663,131	593,755	69,376
Food stores, except dairy-prod- ucts	484,157	417,757	66,400
Dairy-products stores and milk retailing	22,082	20,210	1,872
Meat cutters, except slaughter and packing house	156,892	155,788	1,104
General-merchandise, apparel, and shoe stores	213,969	159,202	54,767
General-merchandise stores	96,040	82,405	13,635
Apparel and accessories stores, except shoes	84,730	56,204	28,526
Shoe stores	20,824	19,903	921
Milliners (not in factory)	12,375	690	11,685
Limited-price variety stores	18,214	15,309	2,905
Furniture and house-furnishings stores	37,214	34,711	2,503
Motor vehicles and accessories, re- tailing	80,996	79,752	1,244
Filling stations	183,655	178,817	4,838
Drugstores (including pharma- cists)	103,497	97,662	5,835
Drugstores	20,330	17,831	2,499
Pharmacists	83,167	79,831	3,336
Hardware and farm implement stores	47,087	45,505	1,582
Jewelry stores	19,207	17,907	1,300
Fuel and ice retailing	45,706	44,406	1,300
Other retail trade and wholesale trade	514,206	473,280	40,926
Household-appliance and radio stores	21,953	21,033	920
Lumber and building material, re- tailing	50,713	49,209	1,504

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Proprietors, Managers, and Officials, Except Farm (Continued)			
<i>Proprietors, managers, and officials (n.e.c.), by industry (Continued):</i>			
Other retail trade and wholesale trade (Continued)			
Liquor stores	17,555	16,330	1,225
Retail florists	15,114	11,002	4,112
Miscellaneous retail stores ..	106,712	90,073	16,639
Not specified retail trade	61,473	52,019	9,454
Wholesale trade	240,686	233,614	7,072
Finance (including salesmen, finance, etc.),			
Banking and other finance	145,416	138,634	6,782
Salesmen, finance, brokerage, and commission firms	125,109	118,747	6,362
Insurance	20,307	19,887	420
Insurance			
Business and repair services	39,735	36,903	2,832
Business services	88,231	83,868	4,363
Automobile-storage, -rental, and -repair services	20,797	17,601	3,196
Miscellaneous repair services and hand trades	61,712	60,802	910
Personal services	5,722	5,465	257
Hotels and lodging places	126,387	94,092	32,295
Laundering, cleaning, and dyeing services	66,935	45,056	21,879
Miscellaneous personal services ..	53,694	44,554	9,140
Miscellaneous industries and services	5,758	4,482	1,276
Theaters and motion-pictures ..	133,866	114,290	19,576
Miscellaneous amusement and rec- reation	26,841	25,430	1,411
Other industries and services	44,003	41,492	2,511
Industry not reported	41,399	28,568	12,831
	21,623	18,800	2,823
Clerical, Sales, and Kindred Workers			
Baggagemen, express messengers, and railway mail clerks	28,436	28,299	137
Baggagemen, transportation	6,099	6,099	.....
Express messengers and railway mail clerks	22,337	22,200	137
Bookkeepers, accountants, cashiers, and ticket agents			
Bookkeepers, accountants, and cash- iers	971,685	493,786	477,899
Ticket, station, and express agents..	931,308	455,623	475,685
Mail carriers	40,377	38,163	2,214
Messengers, except express	122,910	121,366	1,544
Messengers, errand, and office boys and girls	77,356	74,084	3,272
Telegraph messengers	60,740	57,776	2,964
Office-machine operators	16,616	16,308	308
	64,178	9,104	55,074

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Clerical, Sales, and Kindred Workers (Continued)			
Miscellaneous clerical and kindred workers	3,378,227	1,570,147	1,808,080
Shipping and receiving clerks	229,737	220,609	9,128
Stenographers, typists, and secretaries	1,174,886	78,465	1,096,421
Clerical and kindred workers (n.e.c.)	1,973,604	1,271,073	702,531
Telegraph operators	42,562	34,114	8,448
Telephone operators	208,319	11,257	197,062
Agents (n.e.c.)	92,341	83,460	8,881
Attendants and assistants, library	20,203	3,535	16,668
Attendants, physicians' and dentists' offices	31,209	1,507	29,702
Collectors, bill and account	43,990	40,494	3,496
Hucksters and peddlers	56,695	54,197	2,498
Newsboys	56,730	55,633	1,097
Insurance agents and brokers	249,322	236,001	13,321
Real estate agents, proprietors, etc., and building managers and superintendents	213,696	170,588	43,108
Real estate agents and brokers	116,990	106,316	10,674
Proprietors, managers, and officials, real estate	25,764	22,538	3,226
Managers and building superintendents	70,942	41,734	29,208
Auctioneers	3,537	3,354	183
"Clerks" in stores	525,591	306,270	219,321
Demonstrators	10,521	1,818	8,703
Miscellaneous salesmen and saleswomen	2,455,692	1,821,143	634,549
Buyers and department heads, store	72,436	54,115	18,321
Canvassers and solicitors	96,394	78,295	18,099
Traveling salesmen and sales agents	632,667	618,603	14,064
Attendants, filling-station, parking-lot, garage, and airport	234,095	230,069	4,026
Salesmen and saleswomen (n.e.c.)	1,420,100	840,061	580,039
Craftsmen, Foremen, and Kindred Workers			
Bakers	144,296	133,779	10,517
Blacksmiths, forgemen, and hammermen	87,166	86,894	272
Boilermakers	32,982	32,909	73
Cabinetmakers and pattern makers	91,870	91,103	767
Cabinetmakers	58,837	58,356	481
Pattern and model makers, except paper	33,033	32,747	286
Carpenters	766,213	763,878	2,335
Compositors and typesetters	174,312	166,307	8,005
Electricians and power-station operators	249,447	248,011	1,436
Electricians	227,102	226,286	816
Power-station operators	22,345	21,725	620

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Craftsmen, Foremen, and Kindred Workers			
<i>(Continued)</i>			
<i>Foremen (n.e.c.), by industry:</i>			
Construction	74,663	74,274	389
Manufacturing	302,457	270,851	31,606
Food and kindred products	30,355	26,839	3,516
Textiles, etc.	49,073	32,878	16,195
Lumber, etc.	23,473	22,975	498
Paper, paper products, and printing	19,469	17,281	2,188
Chemicals, etc.	22,485	21,175	1,310
Metal industries	112,939	110,264	2,675
Manufacturing industries (n.e.c.) ..	44,663	39,439	5,224
Transportation, etc.	95,679	94,966	713
Railroads	49,573	49,472	101
Street railways and bus lines . . .	4,203	4,183	20
Miscellaneous transportation . . .	11,498	11,418	80
Communication	8,474	8,253	221
Utilities	21,931	21,640	291
Mining	28,244	28,183	61
Wholesale and retail trade (including floormen, etc.)	39,124	34,254	4,870
Wholesale and retail trade	31,951	29,302	2,649
Floormen and floor managers .. .	7,173	4,952	2,221
Business and repair services	6,164	5,952	212
Personal services	7,400	4,594	2,806
Government	10,829	10,231	598
Other industries and services	11,493	9,580	1,913
Industry not reported	7,324	6,381	943
<i>Inspectors (n.e.c.) by industry:</i>			
Mining	7,313	7,294	19
Construction	5,190	5,076	114
Railroads (including railroad repair shops)	29,496	29,421	75
Transportation, except railroad .. .	5,226	5,145	81
Communication and utilities	8,249	7,414	835
Wholesale and retail trade	5,300	3,382	1,918
Miscellaneous industries and services	13,560	11,793	1,767
Locomotive engineers	72,396	72,396	.....
Locomotive firemen	48,851	48,851	.....
Masons, tile setters, and stonecutters...	155,976	155,389	587
Brickmasons, stonemasons, and tile setters	141,690	141,184	506
Stonecutters and stone carvers .. .	14,286	14,205	81
Machinists, millwrights, tool makers, and mechanics	1,635,925	1,625,457	10,468
Machinists, tool makers, and mechan- ics	1,567,636	1,557,433	10,203
Machinists	521,093	516,009	5,084
Tool makers, and die makers and setters	96,885	96,471	414

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Craftsmen, Foremen, and Kindred Workers (Continued)			
Machinists, millwrights, tool makers, and mechanics (Continued)			
Machinists, tool makers, and mechanics (Continued)			
Mechanics and repairmen, airplane	28,384	28,267	117
Mechanics and repairmen, automobile	441,845	440,316	1,529
Mechanics and repairmen, railroad and car-shop	43,998	43,998	0
Mechanics and repairmen (n.e.c.)	435,431	432,372	3,059
Millwrights	43,595	43,426	169
Loom fixers	24,694	24,598	96
Molders, metal	87,624	87,179	445
Painters (construction), paperhangers, and glaziers	480,301	475,172	5,129
Painters, construction and maintenance	442,659	439,348	3,311
Paperhangers	29,994	28,277	1,717
Glaziers	7,648	7,547	101
Plasters and cement finishers	79,560	79,186	374
Plasterers	52,878	52,652	226
Cement and concrete finishers	26,682	26,534	148
Plumbers and gas and steam fitters	210,815	210,105	710
Printing craftsmen, except compositors and typesetters:			
Electrotypers and stereotypers	8,251	8,173	78
Pressmen and plate printers, printing	35,777	35,249	528
Rollers and roll hands, metal	30,447	30,299	148
Roofers and sheet metal workers	124,315	123,775	540
Roofers and slaters	32,720	32,592	128
Tinsmiths, copper smiths, and sheet-metal workers	91,595	91,183	412
Shoemakers and repairers (not in factory)	65,675	65,029	646
Stationary engineers, crane men, and hoistmen	320,285	319,252	1,033
Stationary engineers	200,095	199,459	636
Cranemen, hoistmen, and construction machinery operators	120,190	119,793	397
Structural and ornamental metal workers	38,631	38,369	262
Tailors and furriers	135,952	118,062	17,890
Tailors and tailoresses	118,797	103,080	15,717
Furriers	17,155	14,982	2,173

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Craftsmen, Foremen, and Kindred Workers (Continued)			
<i>Other craftsmen and kindred workers:</i>			
Decorators and window dressers . . .	29,818	23,086	6,732
Engravers, photoengravers, and lithographers	31,112	29,950	1,162
Engravers, except photoengravers . . .	8,571	7,902	669
Photoengravers and lithographers . . .	22,541	22,048	493
Heat treaters, annealers, and temperers	10,877	10,802	75
Inspectors, scalers, and graders, log and lumber	16,558	16,156	402
Jewelers, watchmakers, goldsmiths, and silversmiths	36,332	34,837	1,495
Millers, grain, flour, feed, etc.	15,608	15,527	81
Opticians and lens grinders and polishers	12,198	11,187	1,011
Piano and organ tuners	5,219	5,174	45
Sawyers	46,915	46,604	311
Upholsterers	42,585	40,571	2,014
Operatives and Kindred Workers			
Apprentices	92,360	89,767	2,593
Carpenters' apprentices	7,428	7,365	63
Electricians' apprentices	3,430	3,406	24
Machinists' apprentices	14,198	14,125	73
Plumbers' apprentices	5,311	5,178	133
Building- and hand-trade apprentices (n.e.c.)	14,161	14,084	77
Apprentices, printing trades	10,020	9,780	240
Apprentices, other and not-specified trades	37,812	35,829	1,983
Apprentices, specified trades (n.e.c.)	26,334	24,725	1,609
Apprentices, trades not specified . .	11,478	11,104	374
Brakemen, switchmen, and crossing watchmen	133,594	133,463	131
Brakemen, railroad	68,392	68,392	.....
Switchmen, crossing watchmen, and bridge tenders	65,202	65,071	131
Switchmen, railroad	48,340	48,340	.....
Watchmen (crossing) and bridge tenders	16,862	16,731	131
Chauffeurs, truck drivers, and deliverymen	1,768,041	1,758,012	10,029
Chauffeurs and drivers, bus, taxi, truck, and tractor	1,339,888	1,332,717	7,171
Deliverymen	428,153	425,295	2,858
Conductors, bus and street railway . . .	17,785	17,611	174
Dressmakers and seamstresses (not in factory)	165,031	2,784	162,247
Firemen, except locomotive and fire department	127,455	126,892	563

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Operatives and Kindred Workers (Continued)			
Laundry operatives and laundresses, except private family	233,763	54,096	179,667
Linemen and servicemen, telegraph, telephone, and power	110,816	109,801	1,015
Mine operatives and laborers	824,093	821,546	2,547
Motormen, railway, mine, factory, etc.	56,368	56,101	267
Motormen, street, subway, and elevated railway ..	38,380	38,152	228
Motormen (vehicle), mine, factory, logging camp, etc.	17,988	17,949	39
Painters, except construction and maintenance	100,726	93,848	6,878
Sailors and deck hands, except U.S. Navy ..	46,078	45,861	217
Welders and flame-cutters ..	139,281	137,048	2,233
<i>Other specified kindred workers:</i>			
Asbestos and insulation workers ..	6,399	6,324	75
Blasters and powdermen ..	6,938	6,905	33
Boatmen, canalmen, and lock keepers	7,395	7,304	91
Buffers and polishers, metal ..	45,035	42,909	2,126
Filers, metal ..	10,952	10,487	465
Grinders, metal ..	45,902	45,266	636
Chainmen, rodmen, and axmen, surveying ..	10,572	10,493	79
Dyers ..	24,898	24,134	764
Fruit and vegetable graders and packers, except in cannery ..	25,965	10,993	14,972
Furnacemen, smeltermen, and pourers ..	33,932	33,645	287
Heaters, metal ..	11,081	10,925	156
Oilers, machinery ..	39,498	39,263	235
Photographic process workers ..	15,102	9,271	5,831
<i>Operatives and kindred workers (n.e.c.) by industry:</i>			
<i>Manufacturing</i>			
Food and kindred products ...	356,588	226,198	130,390
Bakery products	43,507	21,653	21,854
Beverage industries	44,345	37,720	6,625
Canning and preserving fruits, vegetables, and sea food..	48,732	17,433	31,299
Confectionery ..	49,014	16,924	32,090
Dairy products ..	36,872	31,133	5,739
Meat products ..	89,736	70,032	19,704
Grain-mill products and miscellaneous food industries.	44,382	31,303	13,079
Grain-mill products	16,295	13,783	2,512
Miscellaneous food industries	28,087	17,520	10,567
Tobacco manufactures	82,563	25,345	57,218
Cotton manufactures	383,250	204,235	179,015

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Operatives and Kindred Workers			
<i>(Continued)</i>			
<i>Operatives and kindred workers (n.e.c.), by industry (Continued)</i>			
<i>Manufacturing (Continued)</i>			
Silk and rayon industries ..	119,126	61,601	57,525
Silk and rayon manufactures .	88,463	41,345	47,118
Rayon and allied products.....	30,663	20,256	10,407
Woolen and worsted manufactures	125,124	65,306	59,818
Knit goods	186,093	63,067	123,026
Other textile-mill products and apparel	857,382	230,103	627,279
Dyeing and finishing textiles .	26,111	20,146	5,965
Carpets, rugs, and other floor coverings	28,815	16,435	12,380
Miscellaneous textile goods . .	20,554	10,281	10,273
Apparel, accessories, and hats ..	707,116	157,018	550,098
Apparel and accessories . . .	690,466	145,052	545,414
Hats, except cloth and millinery	16,650	11,966	4,684
Miscellaneous fabricated textile products, and not-specified textile mills	74,786	26,223	48,563
Miscellaneous fabricated textile products	38,377	8,100	30,277
Not-specified textile mills . .	36,409	18,123	18,286
Lumber, furniture, and lumber products	195,978	169,424	26,554
Furniture and store fixtures	78,062	67,051	11,011
Sawmills, planing mills, and miscellaneous wooden goods .	117,916	102,373	15,543
Sawmills and planing mills ..	62,429	60,962	1,467
Miscellaneous wooden goods	55,487	41,411	14,076
Paper, paper products, and printing	231,238	147,817	83,421
Pulp, paper, and paperboard mills	91,040	73,797	17,243
Paperboard containers and boxes	40,160	19,535	20,625
Miscellaneous paper and pulp products	24,655	10,823	13,832
Printing, publishing, and allied industries	75,383	43,662	31,721
Paints, varnishes, and colors	12,338	10,600	1,738
Miscellaneous chemical industries	82,322	60,108	22,214
Petroleum refining	29,237	28,751	486
Miscellaneous petroleum and coal products	4,429	4,313	116
Rubber products	86,109	62,418	23,691
Footwear industries, except rubber	221,815	123,924	97,891

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Operatives and Kindred Workers			
<i>(Continued)</i>			
<i>Operatives and kindred workers (n.e.c.),</i>			
<i>by industry (Continued)</i>			
<i>Manufacturing (Continued)</i>			
Leather and leather products, except footwear	80,572	52,807	27,765
Leather: tanned, curried, and finished	32,276	28,240	4,036
Leather products, except footwear	48,296	24,567	23,729
Stone, clay, and glass products....	125,618	99,045	26,573
Cement, and concrete, gypsum, and plaster products ...	13,867	13,622	245
Cut-stone and stone products ...	5,594	5,507	87
Glass and glass products	57,133	44,234	12,899
Pottery and related products . .	25,417	16,099	9,318
Structural clay products	12,629	11,120	1,509
Miscellaneous nonmetallic mineral products	10,978	8,463	2,515
Nonferrous-metal primary and miscellaneous products	47,784	38,726	9,058
Nonferrous-metal primary products	19,011	16,658	2,353
Miscellaneous nonferrous-metal products	28,773	22,068	6,705
Clocks, watches, jewelry, and silverware	32,766	19,843	12,923
Electrical machinery and equipment	152,472	82,792	69,680
Automobiles and automobile equipment	219,029	191,263	27,766
Ship and boat building and repairing	27,327	27,051	276
Other metal and metalworking industries	534,362	465,239	69,123
Blast furnaces, steel work, and rolling mills	117,959	112,674	5,285
Tin cans and other tinware . .	13,593	7,121	6,472
Miscellaneous iron and steel industries	197,738	165,804	31,934
Not-specified metal industries ..	11,454	9,518	1,936
Agricultural machinery and tractors	20,311	19,510	801
Office and store machines, equipment, and supplies	22,681	15,880	6,801
Miscellaneous machinery	112,977	98,861	14,116
Aircraft and parts	26,390	25,238	1,152
Railroad and miscellaneous transportation equipment	11,259	10,633	626

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Operatives and Kindred Workers			
<i>(Continued)</i>			
<i>Operatives and kindred workers (n.e.c.), by industry (Continued)</i>			
<i>Manufacturing (Continued)</i>			
Other manufacturing industries . . .	225,451	120,938	104,513
Scientific and photographic equipment and supplies	28,587	17,475	11,112
Miscellaneous manufacturing industries (n.e.c.)	126,221	65,513	60,708
Not-specified manufacturing industries	70,643	37,950	32,693
<i>Nonmanufacturing industries and services</i>			
Agriculture, forestry, and fishery..	19,405	15,801	3,604
Construction	54,994	54,652	342
Railroads (includes railroad repair shops)	67,589	67,096	493
Street-railway, bus, and trucking service	11,541	11,381	160
Street railways and bus lines . .	9,375	9,278	97
Trucking service	2,166	2,103	63
Warehousing and storage	6,042	4,884	1,158
Miscellaneous transportation . .	8,348	8,092	256
Communication	2,060	1,856	204
Utilities	23,437	22,996	441
Wholesale and retail trade	152,094	102,604	49,490
Automobile storage, rental, and repair services	19,099	18,904	195
Business and miscellaneous repair services	19,079	16,603	2,476
Laundering, cleaning, and dyeing services	74,847	48,985	25,862
Hotels and miscellaneous personal services	7,643	5,917	1,726
Finance, insurance, and real estate	4,866	4,560	306
Amusement, recreation, and related services	7,221	6,634	587
Professional and related services..	12,317	6,950	5,367
Government	13,065	10,265	2,800
Industry not reported	22,197	16,095	6,102
Domestic Service Workers			
Housekeepers and servants, private-family	2,151,002	157,802	1,993,200
Housekeepers, private-family	396,160	3,129	393,031
Servants, private-family	1,754,842	154,673	1,600,169
Laundresses, private-family	198,392	3,609	194,783
Protective-Service Workers			
Firemen, fire department	78,822	78,822	.....
Guards, watchmen, and doorkeepers...	219,437	217,073	2,364

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Protective-Service Workers			
<i>(Continued)</i>			
Policemen, sheriffs, and marshals . . .	176,988	174,762	2,226
Policemen and detectives	151,837	150,124	1,713
Policemen and detectives, govern- ment	130,958	129,977	981
Policemen and detectives, except government	20,879	20,147	732
Marshals and constables	8,987	8,857	130
Sheriffs and bailiffs	16,164	15,781	383
Soldiers, sailors, Marines, and Coast Guards	222,485	222,485	....
Service Workers, except Domestic and Protective			
Barbers, beauticians, and manicurists	440,111	221,979	218,132
Boarding-house and lodging-house keep- ers	111,609	10,774	100,835
Charwomen, janitors, and porters . .	630,724	549,419	81,305
Charwomen and cleaners	74,670	34,517	40,153
Janitors and sextons	377,684	338,643	39,041
Porters	178,370	176,259	2,111
Cooks, except private-family	335,806	203,176	132,630
Elevator operators	85,266	71,280	13,986
Housekeepers, stewards, and hostesses, except private-family	88,375	19,924	68,451
Practical nurses and midwives	109,287	4,949	104,338
Servants, except private-family	353,213	161,869	191,344
Waiters and bartenders	733,250	323,934	409,316
Bartenders	128,342	125,122	3,220
Waiters and waitresses, except pri- vate-family	604,908	198,812	406,096
Other service workers, except domestic and protective	228,099	152,398	75,701
Attendants, hospital and other institu- tion	102,189	57,487	44,702
Attendants, professional and personal service (n.e.c.)	33,005	13,347	19,658
Attendants and ushers, recreation and amusement	77,528	66,559	10,969
Attendants, recreation and amuse- ment	57,096	50,492	6,604
Ushers, amusement place or assem- bly	20,432	16,067	4,365
Bootblacks	15,377	15,005	372
Farm Laborers and Foremen			
Farm managers and foremen	62,778	61,651	1,127
Farm foremen	25,275	24,980	295
Farm managers	37,503	36,671	832
Farm laborers (wage workers)	2,312,035	2,198,804	113,231
Farm laborers (unpaid family workers)	1,193,240	967,101	226,139

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Laborers, except Farm and Mine			
Fishermen and oystermen	62,574	62,136	438
Longshoremen and stevedores	75,103	74,681	422
Lumbermen, raftsmen, and woodchoppers	164,264	163,697	567
Gardeners, except farm, and grounds-keepers	174,507	172,655	1,852
Teamsters	31,643	31,483	160
<i>Laborers (n.e.c.) by industry:</i>			
Construction	1,243,534	1,236,688	6,846
<i>Manufacturing</i>			
Food and kindred products	178,692	162,065	16,627
Bakery products	7,822	6,847	975
Beverage industries	21,506	20,544	962
Canning and preserving fruits, vegetables, and sea food	31,938	25,783	6,155
Confectionery	6,848	4,917	1,931
Dairy products	15,507	14,745	762
Meat products	46,083	41,759	4,324
Grain-mill products and miscellaneous food industries	48,988	47,470	1,518
Grain-mill products	20,546	20,132	414
Miscellaneous food industries	28,442	27,338	1,104
Textiles, textile and rayon products, and apparel	105,983	90,185	15,798
Cotton manufactures	39,727	35,204	4,523
Silk and rayon industries	12,745	11,181	1,564
Silk and rayon manufactures	7,376	6,239	1,137
Rayon and allied products	5,369	4,942	427
Woolen and worsted manufactures	13,727	12,523	1,204
Knit goods	5,427	3,757	1,670
Dyeing and finishing textiles	5,884	5,671	213
Carpets, rugs, and other floor coverings	6,541	5,814	727
Miscellaneous textile goods	5,173	4,576	597
Apparel, accessories, and hats	10,188	5,963	4,225
Apparel and accessories	9,507	5,333	4,174
Hats, except cloth and millinery	681	630	51
Miscellaneous fabricated textile products, and not-specified textile mills	6,571	5,496	1,075
Miscellaneous fabricated textile products	2,940	2,266	674
Not-specified textile mills	3,631	3,230	401

TABLE II (Continued)

Occupation (1940 Classification)	Total	Male	Female
Laborers, except Farm and Mine			
<i>(Continued)</i>			
<i>Laborers (n.e.c.) by industry (Continued):</i>			
<i>Manufacturing (Continued)</i>			
Lumber, furniture, and lumber products	291,959	286,922	5,037
Furniture and store fixtures	31,041	30,083	958
Sawmills, planing mills, and miscellaneous wooden goods . .	260,918	256,839	4,079
Sawmills and planing mills . .	224,293	222,683	1,610
Miscellaneous wooden goods . .	36,625	34,156	2,469
Paper, paper products, and printing	66,843	61,437	5,406
Pulp, paper, and paperboard mills	43,893	42,163	1,730
Paperboard containers and boxes	9,658	7,943	1,715
Miscellaneous paper and pulp products	4,167	3,265	902
Printing, publishing, and allied industries	9,125	8,066	1,059
Paints, varnishes, and colors	5,666	5,498	168
Miscellaneous chemical industries .	75,280	72,823	2,457
Petroleum refining	27,562	27,403	159
Miscellaneous petroleum and coal products	7,571	7,516	55
Leather and leather products	28,222	23,940	4,282
Leather, tanned, curried, and finished	13,273	12,861	412
Footwear industries, except rubber	11,619	8,530	3,089
Leather products, except footwear	3,330	2,549	781
Stone, clay, and glass products	106,397	103,271	3,126
Cement, and concrete, gypsum, and plaster products	26,181	26,061	120
Cut-stone and stone products	3,805	3,784	21
Glass and glass products	18,965	17,651	1,314
Pottery and related products	7,207	6,443	764
Structural clay products	41,278	40,751	527
Miscellaneous nonmetallic mineral products	8,961	8,581	380
Nonferrous metals and their products	45,118	43,232	1,886
Nonferrous metal primary and miscellaneous products	42,102	41,004	1,098
Nonferrous metal primary products	25,992	25,688	304
Miscellaneous nonferrous metal products	16,110	15,316	794
Clocks, watches, jewelry, and silverware	3,016	2,228	788

TABLE II (Continued)

Occupation (1910 Classification)	Total	Male	Female
Laborers, except Farm and Mine			
<i>(Continued)</i>			
<i>Laborers (n.e.c.) by industry (Continued):</i>			
<i>Manufacturing (Continued)</i>			
Electrical machinery and equipment	29,787	25,282	4,505
Automobiles and automobile equipment	69,541	66,862	2,679
Ship and boat building and repairing	21,175	21,032	143
Other metal and metalworking industries	387,318	379,995	7,323
Blast furnaces, steel works, and rolling mills	188,280	186,979	1,301
Tin cans and other tinware	5,217	4,550	667
Miscellaneous iron and steel industries	124,589	121,185	3,404
Not-specified metal industries	5,897	5,751	146
Agricultural machinery and tractors	10,528	10,422	106
Office and store machines, equipment and supplies	1,947	1,670	277
Miscellaneous machinery	38,890	37,638	1,252
Aircraft and parts	3,841	3,763	78
Railroad and miscellaneous transportation equipment	8,129	8,037	92
Other manufacturing industries	96,386	82,256	14,130
Tobacco manufactures	15,322	11,295	4,027
Rubber products	20,139	17,639	2,500
Scientific and photographic equipment and supplies	3,092	2,524	568
Miscellaneous manufacturing industries (n.e.c.)	16,270	13,304	2,966
Not-specified manufacturing industries	41,563	37,494	4,069
<i>Nonmanufacturing</i>			
Railroads (including railroad repair shops)	255,537	253,820	1,717
Transportation, except railroad	102,797	101,883	914
Street railway, bus, and trucking service	50,709	50,322	387
Street railways and bus lines	10,505	10,334	171
Trucking service	40,204	39,988	216
Warehousing and storage	25,656	25,312	344
Miscellaneous transportation	26,432	26,249	183
Communication and utilities	96,163	95,674	489
Communication	3,159	3,089	70
Utilities	93,004	92,585	419
Wholesale and retail trade	242,049	233,536	8,513
Personal services	22,806	17,398	5,408
Laundering, cleaning, and dyeing services	13,007	8,050	4,957
Hotels and miscellaneous personal services	9,799	9,348	451

TABLE II (Concluded)

Occupation * 1940 Classification)	Total	Male	Female
Laborers, except Farm and Mine			
<i>(Continued)</i>			
<i>Laborers (n.e.c.) by industry (Continued):</i>			
<i>Nonmanufacturing (Continued)</i>			
Agriculture, forestry, and fishery .	65,899	63,497	2,402
Automobile storage, rental, and maintenance	62,306	61,839	467
Automobile storage, rental, and repair services	2,862	2,843	19
Garage laborers and car-washers and -greasers	59,444	58,996	448
Business and miscellaneous repair services	6,771	6,512	259
Finance, insurance, and real estate	7,046	6,897	149
Amusement, recreation, and related services	16,441	16,212	229
Professional and related services..	19,082	18,052	1,030
Government	52,695	52,184	511
Industry not reported	367,551	362,110	5,441
Occupation not reported	1,282,739	841,494	441,245

TABLE III
OCCUPATIONAL TRENDS, 1910-1940, BY MAJOR OCCUPATION GROUP,¹
IN PERCENTAGE OF ALL WORKERS AND OF ALL WORKERS OF
EACH SEX FOURTEEN YEARS OLD AND OVER (EXCEPT
INEXPERIENCED)²

Group		1910	1920	1930	1940
All workers.	{ Total	100	100	100	100
	{ Male	100	100	100	100
	{ Female	100	100	100	100
Professional persons	{ Total	4.4	5.0	6.1	6.5
	{ Male	3.1	3.2	4.0	4.7
	{ Female	9.2	11.7	13.6	12.2
Farmers (owners and tenants) . .	{ Total	16.5	15.5	12.4	10.1
	{ Male	19.9	18.7	15.2	13.0
	{ Female	3.5	3.2	2.5	1.2
Proprietors, managers, and officials					
Wholesale and retail	{ Total	3.3	3.4	3.7	3.9
	{ Male	4.0	4.0	4.4	4.7
	{ Female	0.9	0.9	1.0	1.4
Others	{ Total	3.2	3.4	3.8	3.7
	{ Male	3.9	4.0	4.6	4.4
	{ Female	0.7	0.9	1.2	1.6
Clerks and kindred workers. . .	{ Total	10.2	13.8	16.3	17.2
	{ Male	9.2	10.6	12.8	13.4
	{ Female	13.9	26.0	28.8	29.1
Skilled workers and foremen . .	{ Total	11.7	13.5	12.9	11.7
	{ Male	14.5	16.7	16.4	15.2
	{ Female	1.2	1.2	0.8	0.8
Semiskilled workers.	{ Total	14.7	16.1	16.4	21.0
	{ Male	11.2	13.3	14.4	18.6
	{ Female	27.9	26.8	23.7	28.5
Unskilled workers					
Farm laborers.	{ Total	14.5	9.4	8.6	7.1
	{ Male	14.0	9.6	9.5	8.5
	{ Female	16.4	8.3	5.4	2.7
Laborers except farm.	{ Total	14.7	14.6	12.9	10.7
	{ Male	18.2	17.7	16.1	13.8
	{ Female	1.4	2.4	1.5	1.0
Servant classes	{ Total	6.8	5.4	6.9	8.0
	{ Male	2.0	2.1	2.7	3.8
	{ Female	24.9	18.6	21.6	21.4

¹Alba M. Edwards' "social-economic" arrangement of the census occupational categories.